



Hardware and Software Guide

HP Notebook Series

Document Part Number: 377692-001

December 2004

This guide explains how to identify, access, and use most of the hardware and software features available on your notebook. Modem information is not included in this guide. For modem information, refer to the modem guides on your *Notebook Documentation* CD.

© Copyright 2004 Hewlett-Packard Development Company, L.P.

Microsoft and Windows are U.S. registered trademarks of Microsoft Corporation. SD Logo is a trademark of its proprietor. Bluetooth is a trademark owned by its proprietor and used by Hewlett-Packard Company under license. Adobe and Acrobat are trademarks of Adobe Systems Incorporated.

The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Hardware and Software Guide
HP Notebook Series
First Edition December 2004
Reference Number: dv1000
Document Part Number: 377692-001

Contents

1 Hardware

| | |
|---|------|
| Windows vs. QuickPlay Functions | 1-1 |
| Top Components | 1-2 |
| Keys | 1-2 |
| TouchPad | 1-3 |
| Power Controls | 1-4 |
| DVD Button | 1-5 |
| Music Button | 1-6 |
| Media Controls—Media Activity Buttons | 1-7 |
| Media Controls—Volume, Back and OK Buttons .. | 1-8 |
| Lights | 1-9 |
| Wireless Lights and Button (Select Models) | 1-10 |
| Wireless Antennae (Select Models) | 1-11 |
| Front Components | 1-12 |
| Speakers, Jacks Display Release Button and Infrared Lens | 1-12 |
| Lights | 1-13 |
| Rear Components | 1-14 |
| Left-Side Components | 1-16 |
| Ports and Jacks | 1-16 |
| PC Card Slot and Button | 1-17 |
| Vent and Security Cable Slot | 1-18 |
| Right-Side Components | 1-19 |
| Ports and Jack | 1-19 |
| 6-in-1 Digital Media Reader Components and Optical Drive | 1-20 |

| | |
|--|------|
| Bottom Components | 1–21 |
| Mini PCI and Memory Compartments | 1–21 |
| Bays, Battery Latch and Vents | 1–22 |
| Additional Components | 1–23 |
| Hardware | 1–23 |
| Optical Discs | 1–24 |
| Labels | 1–25 |

2 QuickPlay

| | |
|--|------|
| QuickPlay Basics | 2–1 |
| Choosing a QuickPlay Mode | 2–1 |
| Turning QuickPlay On and Off | 2–2 |
| Navigating and Selecting in QuickPlay | 2–3 |
| Music Mode | 2–4 |
| Music Console Quick Reference | 2–5 |
| Playing an Audio CD | 2–9 |
| Playing MP3 Files from Your Hard Drive | 2–10 |
| Managing the Playlist | 2–15 |
| DVD Mode | 2–19 |
| Playing a DVD | 2–19 |
| Using DVD Menus | 2–21 |
| Displaying the Title and Chapter of a DVD | 2–21 |
| Media Controls | 2–22 |
| Media Activity Buttons | 2–22 |
| Volume Buttons | 2–24 |
| Battery Information Display | 2–26 |
| QuickPlay Preferences | 2–27 |
| Navigating the Player Setup Menus | 2–27 |
| Changing the QuickPlay Language | 2–27 |
| Enabling and Disabling Auto Turn Off | 2–28 |
| Setting Audio Output Preferences | 2–29 |
| Setting TV-Out and TV System Preferences | 2–30 |
| Setting Picture Property Preferences | 2–34 |
| Restoring Player Setup Menu Default Settings | 2–37 |
| Displaying the Image on an External Device | 2–37 |

| | |
|---|------|
| Switching Between Music Mode and DVD Mode | 2–38 |
| Switching Between QuickPlay and Windows | 2–39 |

3 Keyboard

| | |
|---|------|
| TouchPad | 3–1 |
| Identifying TouchPad Components | 3–1 |
| Using the TouchPad. | 3–2 |
| Setting TouchPad Preferences | 3–2 |
| Hotkeys | 3–4 |
| Identifying Hotkeys | 3–4 |
| Hotkey Quick Reference | 3–5 |
| Using Hotkey Procedures | 3–6 |
| Using Hotkey Commands | 3–6 |
| QuickPlay and Media Controls Buttons | 3–14 |
| Finding DVD and Music Button Information | 3–15 |
| Finding Media Activity Button Information | 3–15 |
| Finding Volume Button Information | 3–15 |
| Keypads | 3–16 |
| Using the Internal Keypad | 3–16 |
| Using an External Keypad | 3–18 |

4 Power

| | |
|--|------|
| Power Sources | 4–1 |
| Selecting a Power Source | 4–1 |
| Switching Between Battery and External Power. . . | 4–3 |
| Power Control and Light Locations | 4–4 |
| Standby, Hibernation and Shutdown Overviews | 4–5 |
| Standby | 4–5 |
| Hibernation | 4–7 |
| Leaving Your Work. | 4–10 |
| Interference with Drive Media | 4–11 |
| Standby, Hibernation and Shutdown Procedures | 4–11 |
| Turning the Notebook On or Off. | 4–12 |
| Initiating or Resuming from Standby | 4–14 |

| | |
|---|------|
| Initiating or Restoring from Hibernation. | 4-15 |
| Using Emergency Turn Off Procedures | 4-16 |
| Switching Between Windows and QuickPlay | 4-17 |
| Power Preferences | 4-18 |
| Using Power Schemes | 4-18 |
| Setting a Standby Password. | 4-18 |
| Setting Other Power Preferences. | 4-19 |
| Battery Pack | 4-21 |
| Charging a Battery Pack | 4-21 |
| Monitoring the Charge in a Battery Pack | 4-22 |
| Managing Low-Battery Conditions. | 4-24 |
| Calibrating a Battery Pack. | 4-26 |
| Conserving Battery Pack Power | 4-29 |
| Replacing a Battery Pack. | 4-31 |
| Storing a Battery Pack | 4-33 |
| Disposing of a Used Battery Pack. | 4-33 |

5 Multimedia

| | |
|---|------|
| Volume Controls | 5-1 |
| Internal Speakers | 5-3 |
| External Audio Devices | 5-4 |
| Using the Audio-In (Microphone) Jack. | 5-4 |
| Using the Audio-Out (Headphone) Jacks | 5-5 |
| External Video Devices | 5-7 |
| Connecting an S-Video Device | 5-7 |
| Displaying a Video Image | 5-9 |
| CD and DVD Procedures. | 5-10 |
| Inserting or Removing a Disc | 5-10 |
| Controlling Disc Activity | 5-11 |
| Using the Media Activity Buttons. | 5-11 |
| Setting AutoPlay Preferences | 5-13 |
| Protecting Playback. | 5-14 |
| Protecting a CD or DVD Write Process | 5-15 |
| Observing the Copyright Warning | 5-15 |
| Changing DVD Region Settings | 5-16 |

| | |
|---|------|
| Windows Multimedia Software | 5–18 |
| Multimedia Software Overview | 5–18 |
| Selecting Multimedia Applications | 5–20 |
| Opening Default Windows Multimedia Applications. | 5–21 |
| Installing WinDVD Creator. | 5–22 |

6 Wireless (Select Models Only)

| | |
|--|------|
| Wireless Local Area Network (Select Models Only) . . . | 6–3 |
| Setting Up a WLAN in Your Home | 6–5 |
| Using a WLAN Connection | 6–6 |
| Using Wireless Security Features | 6–7 |
| Installing Wireless Software (Optional) | 6–7 |
| Troubleshooting Devices. | 6–9 |
| Bluetooth (Select Models Only). | 6–10 |
| Device Power States. | 6–12 |
| Turning On the Devices. | 6–14 |
| Turning Off and Disabling the Devices. | 6–15 |
| Infrared Communications. | 6–16 |
| Setting Up an Infrared Transmission. | 6–17 |
| Using Standby with Infrared | 6–17 |

7 Security

| | |
|---|-----|
| Security Feature Recommendations. | 7–1 |
| Security Preferences in the Setup Utility | 7–3 |
| QuickLock | 7–3 |
| Passwords. | 7–4 |
| HP and Windows Passwords. | 7–5 |
| HP and Windows Password Guidelines | 7–6 |
| HP Administrator Password. | 7–7 |
| Setting HP Administrator Passwords | 7–8 |
| Entering HP Administrator Passwords | 7–9 |

| | |
|--|------|
| Power-On Passwords | 7-9 |
| Setting Power-On Passwords. | 7-9 |
| Entering Power-On Passwords | 7-10 |
| Device Security | 7-11 |
| Antivirus Software | 7-12 |
| Critical Security Updates for Windows XP | 7-13 |
| Firewall Software | 7-14 |
| Optional Security Cable | 7-15 |

8 Hardware Upgrades and Replacements

| | |
|---|------|
| Device Connections | 8-1 |
| Connecting Any Powered Device | 8-1 |
| Connecting a USB Device. | 8-2 |
| Connecting a 1394 Device. | 8-3 |
| Connecting a Communication Device. | 8-4 |
| Digital Memory Cards | 8-5 |
| Using the 6-in-1 Digital Media Reader Light | 8-6 |
| Inserting a Digital Memory Card. | 8-7 |
| Removing a Digital Memory Card | 8-8 |
| PC Cards. | 8-9 |
| Inserting a PC Card | 8-10 |
| Stopping and Removing a PC Card. | 8-11 |
| Drives | 8-12 |
| Adding a Drive to the System | 8-12 |
| Using the IDE Drive Light | 8-12 |
| Caring for Drives. | 8-13 |
| Replacing the Internal Hard Drive. | 8-14 |
| Memory | 8-18 |
| Increasing Memory | 8-18 |
| Removing or Inserting a Memory Module | 8-19 |

9 Software Updates and Recoveries and System Software

| | |
|---|------|
| Software Updates | 9-1 |
| Preparing for a Software Update | 9-2 |
| Downloading and Installing an Update | 9-3 |
| Software Recoveries. | 9-7 |
| Using System Restore | 9-7 |
| Repairing or Reinstalling Software | 9-8 |
| Quick Launch Buttons Control Panel | 9-9 |
| Accessing the Quick Launch Buttons Control Panel | 9-10 |
| Setting Media Buttons Preferences | 9-13 |
| Displaying Hotkey Information. | 9-16 |
| Setting Button Assignments on an External Keyboard | 9-17 |
| Setup Utility | 9-18 |
| Opening the Setup Utility | 9-18 |
| Changing the Language of the Setup Utility | 9-19 |
| Navigating and Selecting in the Setup Utility | 9-19 |
| Displaying System Information. | 9-20 |
| Restoring Default Settings in the Setup Utility | 9-20 |
| Using Advanced Setup Utility Features | 9-21 |
| Closing the Setup Utility | 9-22 |

A Specifications

| | |
|--|-----|
| Operating Environment | A-1 |
| Rated Input Power | A-2 |
| Expansion Port Input/Output Signals. | A-2 |

Index

Hardware

Windows vs. QuickPlay Functions

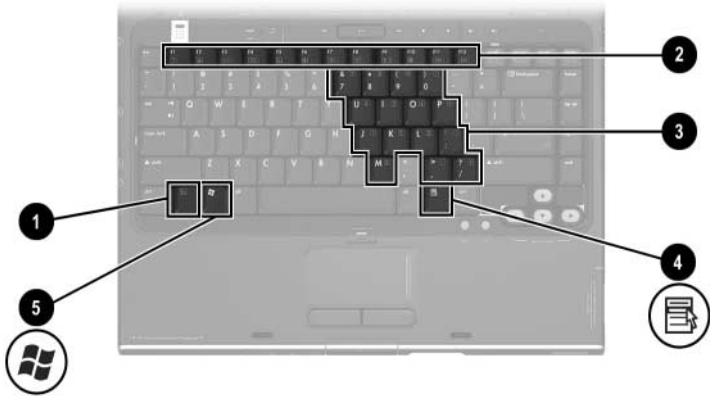
This chapter identifies the visible hardware features included with your notebook and the location of the wireless antennae included with select notebooks.

Some hardware features function differently in the Microsoft® Windows® operating system compared to when the notebook is in QuickPlay. This chapter defines both Windows and QuickPlay functions.

Most chapters in this book also provide information about both Windows and QuickPlay. For information about QuickPlay only, see [Chapter 2, “QuickPlay.”](#)

Top Components

Keys



| Component | Description |
|----------------------------|--|
| ❶ fn key | Combines with other keys and buttons to perform system tasks. For example, pressing fn+f7 decreases screen brightness.* |
| ❷ Function keys (12) | Perform system and application tasks. When combined with fn , function keys perform additional tasks as hotkeys.† |
| ❸ Keypad keys (15) | In Windows, can be used like the keys on an external numeric keypad. |
| ❹ Windows applications key | In Windows, displays a shortcut menu for items beneath the pointer. |
| ❺ Windows logo key | In Windows, displays the Windows Start menu. |

*The keys and buttons that can be combined with the **fn** key as hotkeys include the **esc**, **end**, and function keys.

†The availability and function of some hotkeys varies between Windows and QuickPlay. For information about using hotkeys in both Windows and QuickPlay, see the “Hotkeys” section in [Chapter 3, “Keyboard.”](#)

TouchPad




| Component* | Description |
|---|--|
| ❶ TouchPad [†] | Moves the pointer. |
| ❷ TouchPad light | On: TouchPad is enabled. |
| ❸ TouchPad button | Enables/disables the TouchPad. |
| ❹ TouchPad vertical scrolling region [†] | Scrolls upward or downward. |
| ❺ Left and right TouchPad buttons [†] | Function like the left and right buttons on an external mouse. |

*TouchPad components are inactive in QuickPlay.

[†]This table describes default settings. For information about changing the functions of these TouchPad components, see the [“Setting TouchPad Preferences”](#) section in [Chapter 3, “Keyboard.”](#)

Power Controls



| Component | Description |
|-------------------|--|
| ❶ Display switch* | <ul style="list-style-type: none">■ In Windows, initiates Standby.[†]■ In QuickPlay, turns off the display.[†] |
| ❷ Power button* | <p>When the notebook is</p> <ul style="list-style-type: none">■ Off, press to start the notebook in Windows.■ On in Windows, briefly press to initiate Hibernation.■ On in QuickPlay, briefly press to turn off the notebook.■ In Standby, briefly press to resume from Standby into Windows.■ In Hibernation, briefly press to restore from Hibernation into Windows. <p> If the system has stopped responding and Windows shutdown procedures cannot be used, press and hold for at least 4 seconds to turn off the notebook.</p> |

*The display switch is pressed by the display when the notebook is closed.

[†]This table describes the Windows default and QuickPlay settings. For information about changing the Windows function of the display switch or power button, see the [“Setting Other Power Preferences”](#) section in [Chapter 4, “Power.”](#)

DVD Button



| Component | Description |
|------------|--|
| DVD button | <p>When the notebook is</p> <ul style="list-style-type: none"> ■ Off, opens QuickPlay DVD mode. ■ On in Windows, opens the default DVD application.* ■ On in QuickPlay DVD mode: <ul style="list-style-type: none"> <input type="checkbox"/> If a DVD is playing, displays the menu of the DVD. <input type="checkbox"/> If a DVD is not in the optical drive, displays a prompt to insert a DVD. ■ On in QuickPlay music mode, opens QuickPlay DVD mode. ■ In Standby, resumes from Standby into Windows. ■ In Hibernation, opens QuickPlay DVD mode.† |

*The function of the DVD button in Windows can be changed. For instructions, see the [“Quick Launch Buttons Control Panel”](#) section in [Chapter 9, “Software Updates and Recoveries and System Software.”](#)

†This procedure does not affect the hibernation file or the procedure for restoring from Hibernation into Windows.

Music Button

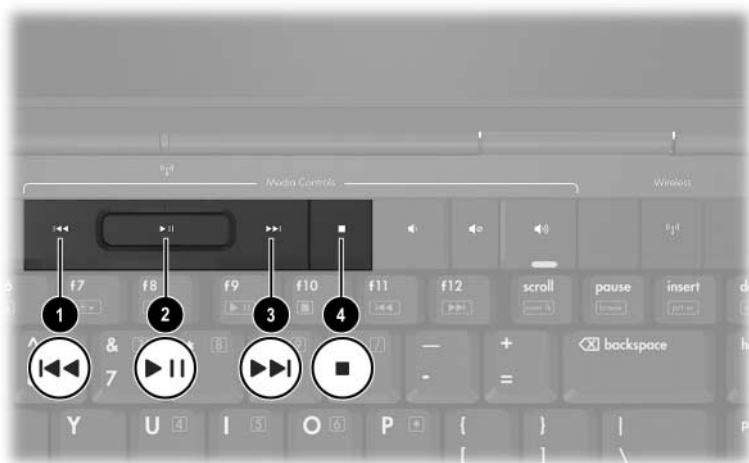


| Component | Description |
|--------------|--|
| Music button | <p>When the notebook is</p> <ul style="list-style-type: none">■ Off, opens QuickPlay music mode.■ On in Windows, opens the default music application.*■ On in QuickPlay DVD mode, opens QuickPlay music mode.■ In Standby, resumes from Standby into Windows.■ In Hibernation, opens QuickPlay music mode.[†] |

*The function of the music button in Windows can be changed. For instructions, see the [“Quick Launch Buttons Control Panel”](#) section in [Chapter 9, “Software Updates and Recoveries and System Software.”](#)

[†]This procedure does not affect the hibernation file or the procedure for restoring from Hibernation into Windows.

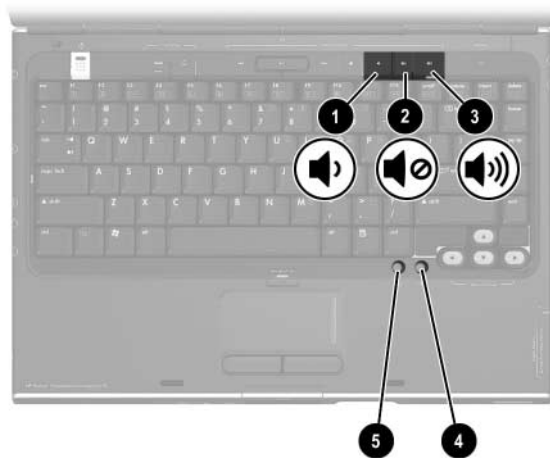
Media Controls—Media Activity Buttons



| Component | Description |
|-----------------------------|--|
| ❶ Previous/Rewind button* | When a disc is playing in the optical drive: <ul style="list-style-type: none"> ■ Press to play the previous track or chapter. ■ Press fn+this button to rewind. |
| ❷ Play/Pause button* | When a disc is in the optical drive and is <ul style="list-style-type: none"> ■ Not playing, press to play the disc. ■ Playing, press to pause the disc. |
| ❸ Next/Fast Forward button* | When a disc is playing in the optical drive: <ul style="list-style-type: none"> ■ Press once to play the next track or chapter. ■ Press fn+this button to fast forward. |
| ❹ Stop button* | When a disc is playing in the optical drive, press to stop the current disc activity, such as fast forwarding, rewinding, etc. |

*When the notebook is in QuickPlay music mode, these buttons also control the activity of MP3 files playing from your hard drive.

Media Controls—Volume, Back and OK Buttons



| Component | Description |
|----------------------|--|
| ❶ Volume down button | Decreases system volume. |
| ❷ Volume mute button | Mutes or restores volume. |
| ❸ Volume up button | Increases system volume. |
| ❹ ok button | Selects an item you have chosen on the screen. |
| ❺ back button | <ul style="list-style-type: none">■ In Windows, emulates the “back” function of the alt+left arrow command in the active application.■ In QuickPlay music mode, moves the Shared Music display up one directory level.■ In QuickPlay DVD mode, this button is inactive. |

Lights




| Component | Description |
|-----------------------|--|
| ❶ Caps lock light* | On: Caps lock is on. |
| ❷ Power button light† | On: Notebook is turned on. Blinking: Notebook is in Standby. Off: Notebook is off. |
| ❸ Mute light | On: Volume is muted. |
| ❹ Num lock light* | On: Num lock or the internal keypad is on. |

*The caps lock light and the num lock light are inactive in QuickPlay.

†The power button light and the power/standby light (on the front of the notebook) display the same information. The power button light is visible only when the notebook is open; the power/standby light is visible when the notebook is closed.

Wireless Lights and Button (Select Models)




| Component | Description |
|-------------------|--|
| ❶ Wireless light* | On: One or more internal wireless devices, such as a wireless LAN device and/or a Bluetooth® device, are turned on.† |
| ❷ Wireless light* | On: One or more internal wireless devices, such as a WLAN and/or a Bluetooth device, are turned on.† |
| ❸ Wireless button | Turns the wireless functionality on or off, but does not create a wireless connection.†  To establish a wireless connection, a wireless network must already be set up. For information about establishing a wireless connection from Windows, see Chapter 6, “Wireless (Select Models Only).” |

*There are 2 wireless lights. Both lights display the same information. The light associated with the wireless button is visible only when the notebook is open; the other wireless light is always visible on the rear of the notebook.

†The wireless button is inactive during QuickPlay. The QuickPlay feature can only be used with the internal speakers or devices connected to the headphone jack. Audio devices/accessories, such as Bluetooth headphones that require the operating system, will not work in QuickPlay.

Wireless Antennae (Select Models)



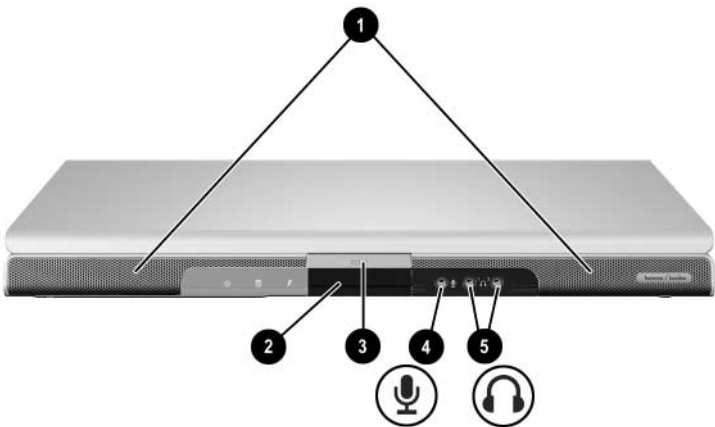
| Component | Description |
|---------------|--|
| Antennae (2)* | <p>Send and receive wireless device signals.[†]</p> <p> Exposure to Radio Frequency Radiation. The radiated output power of this device is below the FCC radio frequency exposure limits. Nevertheless, the device should be used in such a manner that the potential for human contact during normal operation is minimized. To avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antennae should be not less than 20 cm (8 inches) during normal operation, including when the notebook display is closed.</p> |

*The antennae are not visible from the outside of the notebook. For optimal transmission, keep the areas immediately around the antennae free from obstructions.

[†]Wireless devices, including Bluetooth headphones, cannot be used when the notebook is in QuickPlay. For information about establishing a wireless link from Windows, see [Chapter 6, “Wireless \(Select Models Only\).”](#)

Front Components

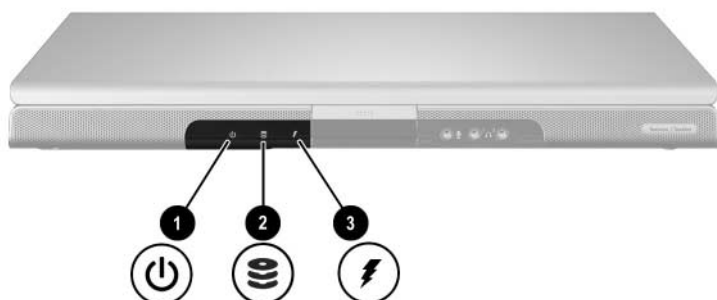
Speakers, Jacks Display Release Button and Infrared Lens



| Component | Description |
|-----------------------------------|---|
| ❶ Stereo speakers (2) | Produce stereo sound. |
| ❷ (Consumer) Infrared lens | Links the notebook to an optional remote control. |
| ❸ Display release button | Opens the notebook. |
| ❹ Audio-in (microphone) jack* | Connects an optional monaural (single sound channel) microphone. |
| ❺ Audio-out (headphone) jacks (2) | Connect optional headphones or powered stereo speakers. Also connect the audio function of an audio/video device such as a television or VCR. |

*A device connected to the audio-in (microphone) jack cannot be used when the notebook is in QuickPlay.

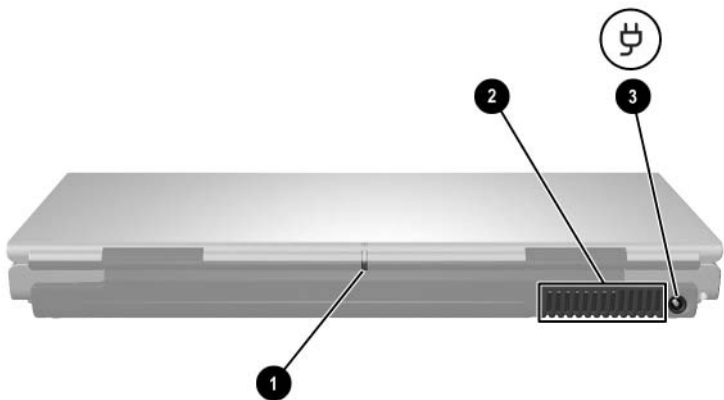
Lights



| Component | Description |
|--|---|
| ❶ Power/standby light* | On: Notebook is turned on. Blinking: Notebook is in Standby. Off: Notebook is off. |
| ❷ IDE (Integrated Drive Electronics) drive light | On or blinking: The internal hard drive or an optical drive is being accessed. |
| ❸ Battery light | On: The battery pack is charging. Blinking: The battery pack has reached a low-battery condition. Off: The battery pack is fully charged or not inserted. |

*The power/standby light and the power button light display the same information. The power/standby light is visible when the notebook is closed; the power button light is visible only when the notebook is open.

Rear Components



| Component | Description |
|--|--|
| ❶ Wireless light (available on select models)* | On: An internal wireless device, such as a wireless LAN device and/or a Bluetooth device, is turned on.† |

| | |
|-----------------------------|---|
| ② Exhaust vent [‡] | Provides airflow to cool internal components. |
|-----------------------------|---|



To prevent overheating, do not obstruct vents. Do not allow a hard surface, such as a printer, or a soft surface, such as pillows or thick rugs or clothing, to block airflow.

| | |
|-------------------|--------------------------------|
| ③ Power connector | Connects the AC adapter cable. |
|-------------------|--------------------------------|

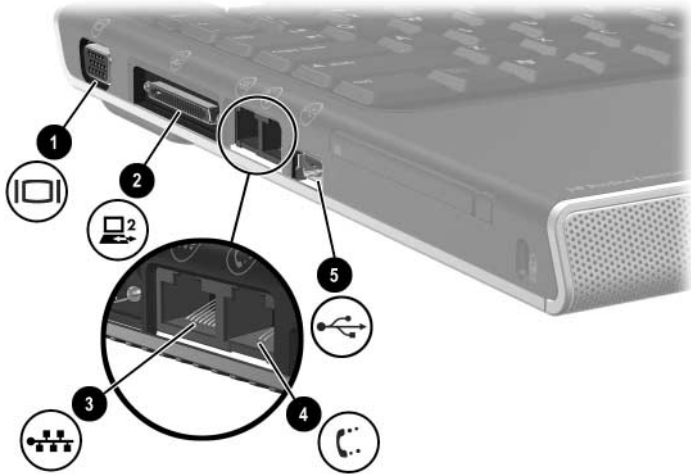
*There are 2 wireless lights. Both lights display the same information. The light associated with the wireless button is visible only when the notebook is open; the other wireless light is always visible on the rear of the notebook.

[†]QuickPlay does not support wireless transmissions. For information about establishing a wireless link in Windows, see [Chapter 6, “Wireless \(Select Models Only\)”](#).

[‡]The notebook has 4 vents. This and all other vents are visible on the bottom of the notebook. One vent is also visible on the left side of the notebook.

Left-Side Components

Ports and Jacks



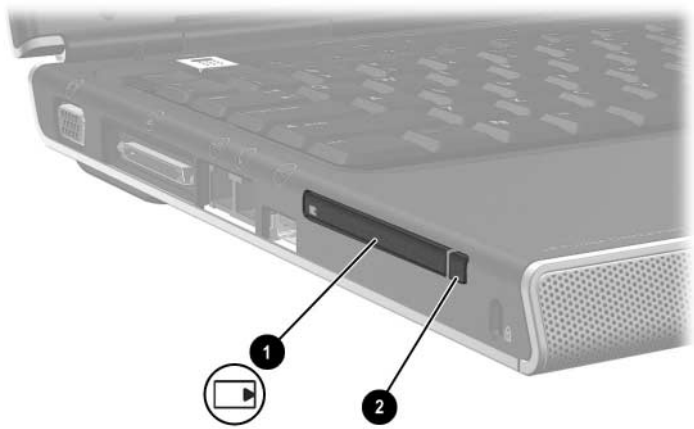
| Component | Description |
|-------------------------|---|
| ❶ Monitor port | Connects an optional VGA monitor or projector. |
| ❷ Expansion port* | Connects the notebook to an optional Expansion Base. [†] |
| ❸ RJ-45 (network) jack | Connects an optional network cable. [†] |
| ❹ RJ-11 (modem) jack | Connects the modem cable. [†] |
| ❺ USB port [‡] | Connects an optional USB device. [‡] |

*For expansion port signal information, see the “[Expansion Port Input/Output Signals](#)” section in [Appendix A](#).

[†]A network connection, a modem connection, or a device connected to a USB port cannot be used when the notebook is in QuickPlay.

[‡]The notebook has 3 USB ports. The other USB ports are on the right-hand side of the notebook.

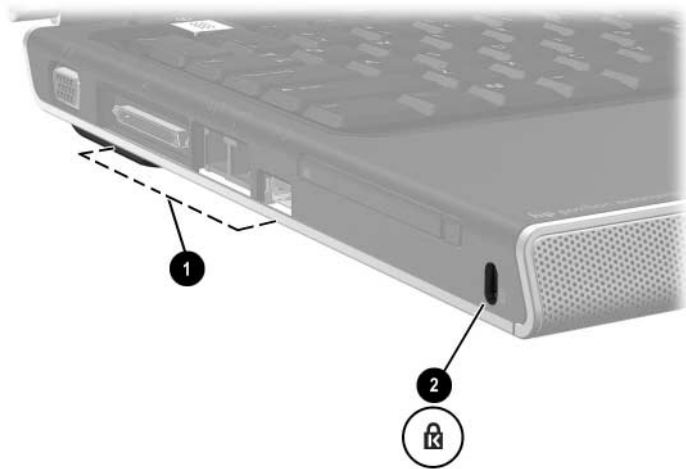
PC Card Slot and Button



| Component | Description |
|------------------------|--|
| ❶ PC Card slot | In Windows, supports an optional Type I or Type II 32-bit (CardBus) or 16-bit PC Card. |
| ❷ PC Card eject button | Ejects an optional PC Card from the PC Card slot. |

*A PC Card cannot be used when the notebook is in QuickPlay.

Vent and Security Cable Slot

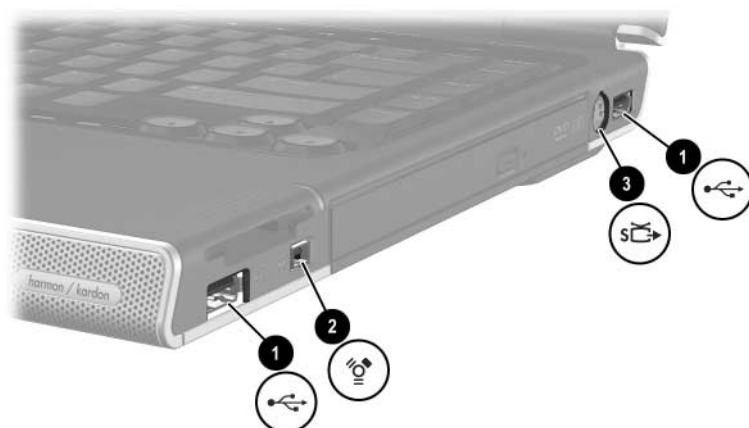


| Component | Description |
|------------------------------|--|
| ❶ Exhaust vent* | <p>Provides airflow to cool internal components.</p> <p>△ To prevent overheating, do not obstruct vents. Do not allow a hard surface, such as a printer, or a soft surface, such as pillows or thick rugs or clothing, to block airflow.</p> |
| ❷ Security cable slot | <p>Attaches an optional security cable to the notebook.</p> <p>🔒 The purpose of security solutions is to act as a deterrent. These solutions do not prevent the product from being mishandled or stolen.</p> |

*The notebook has 4 vents. This and all other vents are visible on the bottom of the notebook. One vent is also visible on the rear of the notebook.

Right-Side Components

Ports and Jack



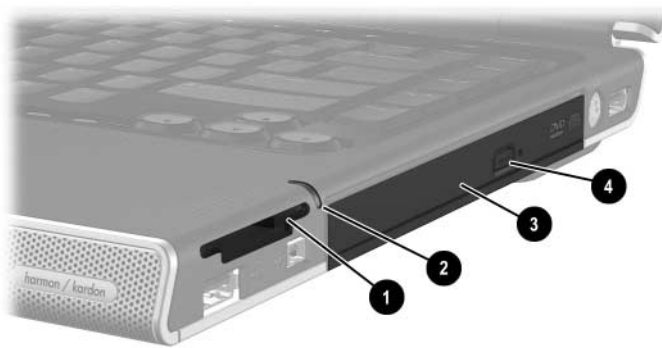
| Component | Description |
|---------------------------------|--|
| ❶ USB ports (2)* | Connect optional USB devices. [†] |
| ❷ 1394 port | Connects an optional 1394a device such as a scanner, a digital camera, or a digital camcorder. [†] |
| ❸ S-Video-out jack [‡] | Connects an optional S-Video device, such as a television, VCR, camcorder, projector, or video capture card. |

*The notebook has 3 USB ports. The other USB port is on the left side of the notebook.

[†]A device connected to a USB port or the 1394 port cannot be used in QuickPlay.

[‡]In QuickPlay a device connected to the S-Video-out jack can be used only when the notebook is in DVD mode and only when TV-Out is enabled. For more information and instructions, see the “[Setting TV-Out and TV System Preferences](#)” section in [Chapter 2](#), “QuickPlay.”

6-in-1 Digital Media Reader Components and Optical Drive



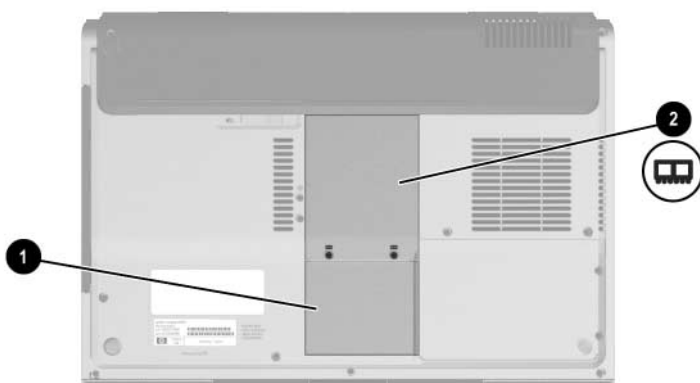
| Component | Description |
|-------------------------------------|---|
| ❶ 6-in-1 Digital Media Reader slot | In Windows, supports digital memory cards.* |
| ❷ 6-in-1 Digital Media Reader light | On: A digital memory card is being accessed.* |
| ❸ Optical drive [†] | Supports an optical disc. |
| ❹ Media tray release button | Opens the optical drive media tray. |

*The supported digital memory cards are: Secure Digital (SD) Memory Card, Memory Stick, Memory Stick Pro, xD-Picture Card, MultiMediaCard, and SmartMedia (SM) card. These cards cannot be used in QuickPlay.

[†]The type of optical drive—for example, a DVD-ROM drive or a DVD/CD-RW Combo Drive—varies by notebook model.

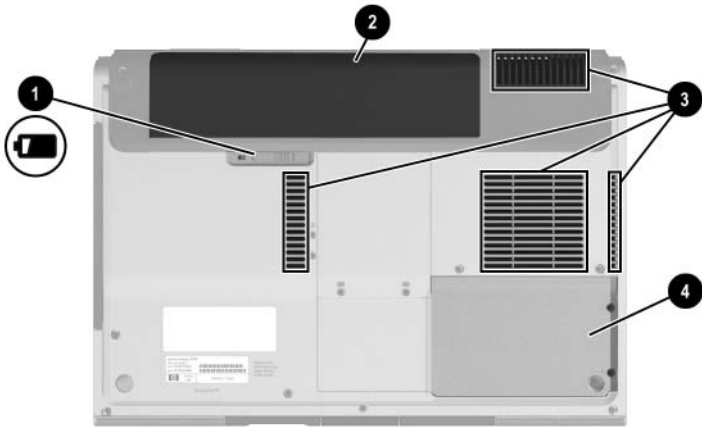
Bottom Components

Mini PCI and Memory Compartments



| Component | Description |
|------------------------|---|
| ❶ Mini PCI compartment | Holds an optional wireless LAN device. ⚠ To prevent an unresponsive system and the display of a warning message, install only a Mini PCI device authorized for use in your notebook by the governmental agency that regulates wireless devices in your country. If you install an unauthorized device and then receive a warning message, remove the device to restore notebook functionality. Then contact Customer Care. |
| ❷ Memory compartment | Contains 2 memory slots that support replaceable memory modules. The number of preinstalled memory modules varies by notebook model. |

Bays, Battery Latch and Vents



| Component | Description |
|----------------------------------|--|
| ❶ Battery pack release latch* | Releases a battery pack from the battery bay. |
| ❷ Battery bay | Holds a battery pack. |
| ❸ Exhaust vents (4) [†] | Provide airflow to cool internal components. △ To prevent overheating, do not obstruct vents. Do not allow a hard surface, such as a printer, or a soft surface, such as pillows or thick rugs or clothing, to block airflow. |
| ❹ Hard drive bay | Holds the internal hard drive. |

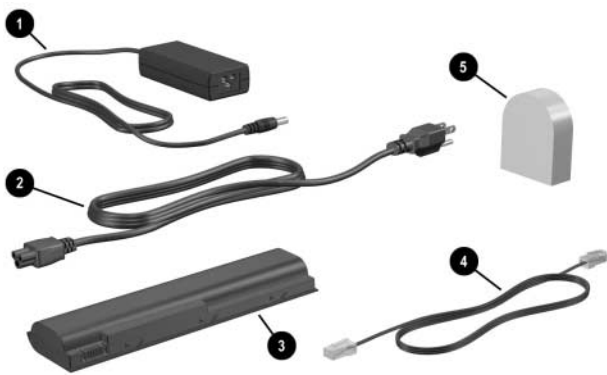
*Battery packs vary by model.

[†]The notebook has 4 vents. One vent is also visible on the left side of the notebook, and one vent is also visible on the rear of the notebook.

Additional Components

Hardware

The components included with your notebook vary by region, country, notebook model, and the optional hardware you purchased. The following sections identify the standard external components included with most notebook models.



| Component | Description |
|--|---|
| ❶ AC adapter | Converts AC power to DC power. |
| ❷ Power cord* | Connects an AC adapter to an AC outlet. |
| ❸ Battery pack* | Powers the notebook when the notebook is not connected to external power. |
| ❹ Modem cable* | Connects a modem to an RJ-11 telephone jack or to a country-specific modem adapter. |
| ❺ Country-specific modem adapter (included by region as required)* | Adapts the modem cable to a non-RJ-11 telephone jack. |

*Power cords, modem cables, and modem adapters vary in appearance by region and country. Battery packs vary by model.

Optical Discs

Software on optical discs, such as CDs or DVDs, is included with all notebook models.

- The software applications packaged with the *Getting Started* guide are not preinstalled on your notebook. Depending on how you want to use your notebook, you might want to install some or all of these applications.
- The software applications packaged with the *Help and Support Guide* are preinstalled or preloaded on your notebook. The software discs are provided in case you ever need to repair or reinstall this software.
 - The discs packaged with the *Help and Support Guide* also provide operating system recovery, HP QuickPlay recovery, and driver recovery software. Application recovery software is provided with select notebook models.
 - The *Notebook Documentation* CD, which is also packaged with the *Help and Support Guide*, contains Adobe® Acrobat® PDF files, not software. The files on the *Notebook Documentation* CD are not preinstalled or preloaded on your notebook.

For more information about the recovery software and the *Notebook Documentation* CD, and for software installation instructions (including instructions for installing preloaded software), refer to the printed *Help and Support Guide* included with your notebook. The *Help and Support Guide* is also available on the *Notebook Documentation* CD.

Labels

The labels affixed to the notebook provide information you might need when you troubleshoot system problems or travel internationally with the notebook.

- **Service Tag**—Provides the product name, product number (P/N), and serial number (S/N) of your notebook. You might need the product number and the serial number when you contact Customer Care. The Service Tag label is affixed to the bottom of the notebook. To display the information on the Service Tag on your screen, select **Start > Help and Support**.
- **Microsoft Certificate of Authenticity**—Contains the Windows Product Key. You might need the Product Key to update or troubleshoot your Windows operating system. This certificate is affixed to the bottom of the notebook.
- **Regulatory label**—Provides regulatory information about the notebook. The Regulatory label is affixed to the inside of the battery bay.
- **Modem Approval label**—Provides regulatory information about the modem and lists the agency approval markings required by some of the countries in which the modem has been approved for use. You might need this information when traveling internationally. The Modem Approval label is affixed to the inside of the memory compartment cover.
- **Wireless certification labels**—Some notebook models include an optional WLAN device and/or an optional Bluetooth device. If your notebook model includes one or more wireless devices, a certificate providing regulatory information about each device and the approval markings of some of the countries in which the device has been approved for use is included with your notebook. You might need this information when traveling internationally. Wireless certification labels are affixed to the inside of the Mini PCI compartment cover.

QuickPlay

QuickPlay Basics

QuickPlay is innovative software that turns your notebook into a mobile entertainment center.

Because QuickPlay is independent from Windows, you can

- Enjoy music and movies fast—without waiting for Windows to start up.
- Manage playback simply—by using dedicated media controls.
- Allow other users to play music and movies in QuickPlay without affecting your Windows data or settings—Windows cannot be accessed while the notebook is in QuickPlay.

Choosing a QuickPlay Mode

QuickPlay has 2 modes. Use

- Music mode to play audio CDs or MP3 files stored in the Shared Music folder on your hard drive.



To access the Shared Music folder on your hard drive:

In Windows XP Home, select **Start > My Computer > Shared Documents > Shared Music**.

In Windows XP Professional, select **Start > My Computer > Drive_C (C:) > Documents and Settings > All Users > Shared Documents > Shared Music**.

- DVD mode to play DVDs or video CDs.

Turning QuickPlay On and Off

QuickPlay can be turned on only when the notebook is off or in Hibernation. For information about Hibernation, see [Chapter 4, “Power.”](#)

To turn on the notebook in QuickPlay when it is off or in Hibernation:

- Press the DVD button ❷ to turn on the notebook in DVD mode.

– or –

- Press the music button ❸ to turn on the notebook in music mode.

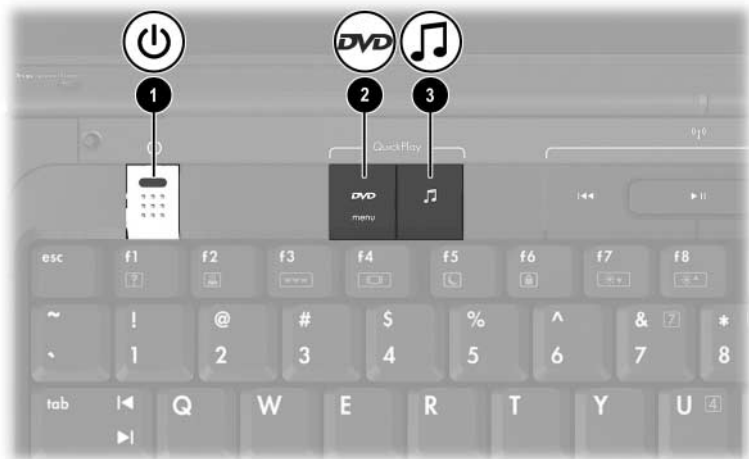
To turn off the notebook from QuickPlay:

- Briefly press the power button ❶.

– or –

- Allow the QuickPlay auto turn off feature to turn off the notebook after 5 minutes of notebook inactivity.

For more information about the QuickPlay auto turn off feature, see the [“Enabling and Disabling Auto Turn Off”](#) section later in this chapter.



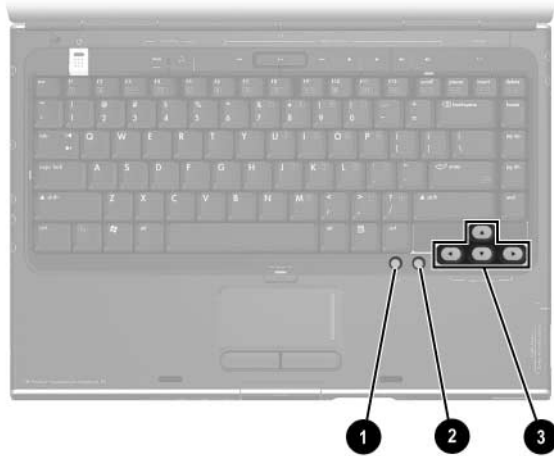
Navigating and Selecting in QuickPlay

When the notebook is in QuickPlay:

- To navigate to an item on the screen, use the arrow keys ❸.
- To select an item you have chosen on the screen, press **ok** ❷.

When the notebook is in music mode and the music console is displayed, additional navigation features are available and some procedures use the back button ❶.

For more information about the music console and music mode procedures, see the [“Music Mode”](#) section next in this chapter.

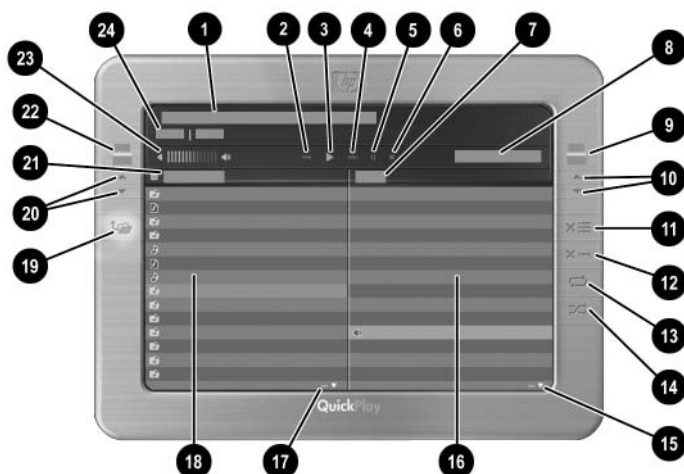


Music Mode

Use music mode to play audio CDs and MP3 files stored in the Shared Music folder on your hard drive. For information about using the Shared Music folder, see the [“Storing Music Files on the Hard Drive”](#) section later in this chapter.



When the notebook is in music mode, the music console is displayed. Many music mode procedures use displays and controls on the music console. The following section, [“Music Console Quick Reference,”](#) identifies these components.

Music Console Quick Reference



| Component | Description |
|----------------------|--|
| ❶ Title display | <ul style="list-style-type: none"> ■ If an MP3 file stored in the Shared Music folder on your hard drive is playing, displays the artist, CD name, track number, and song name. ■ If an audio CD is playing, displays the number of the track that is playing. |
| ❷ Previous indicator | On: The notebook is preparing to play the previous selection on the Playlist. |
| ❸ Play indicator | On: The notebook is playing a selection from the Playlist. |
| ❹ Next indicator | On: The notebook is preparing to play the next selection on the Playlist. |
| ❺ Pause indicator | On: The playback is paused. |
| ❻ Stop indicator | On: The playback is stopped. |

(Continued)

| Component | Description |
|---|--|
| ⑦ Playlist heading | Identifies the right-hand column of the music console as the Playlist. The Playlist displays the items the notebook is set to play. |
| ⑧ Time display | Displays the time of day. |
| ⑨ Playlist counter | <ul style="list-style-type: none">■ Upper number: The location on the Playlist of a selected item.■ Lower number: The total number of items on the Playlist. |
| ⑩ Playlist page up and page down controls | <ul style="list-style-type: none">■ Up arrow: Displays the previous page of the Playlist.■ Down arrow: Displays the next page of the Playlist. |
| ⑪ Clear all control | Select this control and then press ok to remove all items from the Playlist. |
| ⑫ Clear item control | Select this control and then press ok to remove a selected item from the Playlist. |
| ⑬ Repeat control | Select this control and then press ok to repeat the Playlist.  The repeat and shuffle functions can be selected at the same time. |
| ⑭ Shuffle control | Select this control and then press ok to play items on the Playlist in a random sequence.  The shuffle and repeat functions can be selected at the same time. |
| ⑮ Playlist scroll indicator | Indicates that the Playlist contains more items than can be displayed on the current page. |
| ⑯ Playlist | Displays the items that the notebook is set to play. |

(Continued)

| Component | Description |
|--|---|
| 17 Source directory scroll indicator | Indicates that the Source directory contains more items than can be displayed on the current page. |
| 18 Source Directory | Allows you to choose your music selection; <ul style="list-style-type: none">■ Select CD Drive to play audio CDs.■ Select My Music to play MP3 files from your Shared Music folder on your hard drive. |
| 19 Back control | Navigates back one level of the Source directory. |
| 20 Source directory page up and page down controls | <ul style="list-style-type: none">■ Up arrow: Displays the previous page in the directory.■ Down arrow: Displays the next page in the directory. |
| 21 Source display | Displays the source of the items listed on the Source directory. For example: <ul style="list-style-type: none">■ When the notebook is set to play items from the Shared Music folder on your hard drive, the heading in the Source display is <i>My Music</i>.■ When the notebook is set to play audio CDs and an audio CD is in the optical drive, the heading in the Source display is <i>CD-Drive</i>.■ When the notebook is in music mode, but is not set to play either music from your hard drive or audio CDs, the heading in the Source display is <i>Select Music Source</i>. |

(Continued)

| Component | Description |
|-----------------------------|---|
| 22 Source directory counter | <ul style="list-style-type: none"><li data-bbox="487 245 916 302">■ Upper number: The location on the Source directory of a selected item.<li data-bbox="487 310 916 391">■ Lower number: The lower number indicates the total number of items listed on the Source directory. |
| 23 Volume bar display | Displays the current volume. |
| 24 Time remaining display | <ul style="list-style-type: none"><li data-bbox="487 461 953 518">■ Left-hand number: Time elapsed on an item that is playing.<li data-bbox="487 526 953 578">■ Right-hand number: Time remaining on an item that is playing. |

Playing an Audio CD

To play an audio CD in QuickPlay:



Make sure that the audio CD is in the optical drive and the media tray on the optical drive is closed.

1. If the notebook is off or in Hibernation, press the music button.
2. Select Audio CDs as your music source.

If the notebook is already in music mode but set to play MP3 files from the Shared Music folder on your hard drive, press **back**, select **CD-Drive** on the Source directory on the music console, and then press **ok**.

Finding Disc Insertion and Removal Instructions

For information about inserting a disc into the optical drive, see the “[Inserting or Removing a Disc](#)” section in [Chapter 5](#), “[Multimedia](#).” The section includes instructions for opening the media tray while the notebook is turned off.

Opening Music Mode

- » To turn on the notebook in music mode or to switch the notebook from QuickPlay DVD mode to QuickPlay music mode, press the music button.



Pressing the Play/Pause Button

If an audio CD does not play when the notebook is in music mode and set to play audio CDs, press the play/pause button, identified in the following illustration.

For more information about the play/pause button and other media controls, see the “Media Controls” section later in this chapter.



Playing MP3 Files from Your Hard Drive

To play MP3 files stored on your hard drive:



The MP3 files must be stored in the Shared Music folder on your hard drive.

1. If the notebook is off or in Hibernation, press the music button.
2. Select **My Music** as your music source.
3. Add the MP3 files you want to play to the play list.



If the notebook is already in music mode but set to play audio CDs, press **back**, select **CD-Drive** on the Source directory on the music console, and then press **ok**.

Storing Music Files on the Hard Drive

To access or manage the Shared Music folder on your hard drive, the notebook must be in Windows.

- To access the default Shared Music folder on your hard drive:
 - ❑ In Windows XP Home, select **Start > My Computer > Shared Documents > Shared Music**.
 - ❑ In Windows XP Professional, select **Start > My Computer > Drive_C (C:) > Documents and Settings > All Users > Shared Documents > Shared Music**.
- To manage the Shared Music folder on your hard drive, for example to add or remove songs or subfolders or to move songs among folders, use standard Windows Explorer procedures. For instructions, select **Start > Help and Support**.

Opening Music Mode

- » To turn on the notebook in music mode or to switch the notebook from DVD mode to music mode, press the music button.



Setting the Notebook to Play MP3 Files from Your Hard Drive

When the notebook is in music mode, the notebook can be set to play either MP3 files stored in the Shared Music folder on your hard drive or audio CDs.

To set the notebook to play MP3 files stored in the Shared Music folder on your hard drive:

- If you open music mode while
 - ❑ The optical drive is vacant or contains a DVD, no action is necessary.
 - ❑ The optical drive contains an audio CD, press **back**, select **My Music** on the Source directory on the music console, and then press **ok**.

When the notebook is set to play MP3 files stored in the Shared Music folder on your hard drive, the heading in the Source display is *My Music*.

Adding an MP3 file from the Source Directory to the Playlist

When the notebook is in music mode, only items on the Playlist can be played.

- To add an MP3 file from the Source directory to the Playlist, select the item, and then press **ok**.
- To play an MP3 file from your Playlist, select the item and then press the play/pause button, identified in the following illustration.



For information about using folders in the Source directory, see [“Navigating the Source Directory”](#) next in this chapter.

For more information about the play/pause button and other media controls, see the [“Media Controls”](#) section later in this chapter.

For more information about adding or removing items from the Playlist, changing the sequence of the play, or setting the notebook to repeat the play, see the [“Managing the Playlist”](#) section later in this chapter.

Navigating the Source Directory

When the notebook is in music mode and set to play MP3 files from the Shared Music folder on your hard drive, the contents of the Shared Music folder are displayed on the Source directory of the music console.

You can navigate and display the contents of the Shared Music folder in the source directory. To manage the contents of your Shared Music folder, you must perform management actions, such as adding or deleting files in Windows. For more information about the Shared Music folder, see the “[Storing Music Files on the Hard Drive](#)” section earlier in this chapter.

The following information applies only to the Source directory.

- To scroll upward or downward page-by-page through the Source directory, select the page up or page down controls on the *left-hand* side of the music console, and then press **ok**.
- Icons identify subfolders and songs.
 - ❑ Subfolders are identified with a note-and-folder icon ❶.
 - ❑ Songs are identified with a note icon ❷.



- You can navigate, but not modify, the subfolders.
 - ❑ To open a folder and display its contents, select the folder, and then press **ok**.
 - ❑ To close a folder, select an item stored in the folder, and then press **back**.
- The location and quantity of items on the Source directory are displayed on the Source directory counter. The Source directory counter is on the *left-hand* side of the music console.
 - ❑ The upper number of the counter displays the location of the selected item on the Source directory. For example, if the second item listed in your Source directory is selected, the upper number is 2.
 - ❑ The lower number of the counter displays the quantity of items listed on the Source directory. For example, if the Source directory contains 3 subfolders and 2 songs, the lower number is 5.

Managing the Playlist

The Playlist is a list of selections from your Shared Music folder or an inserted audio CD. Only items on the Playlist can be played in music mode.

If you turn off the notebook from music mode or switch the notebook from music mode to DVD mode, your Playlist is saved. The next time you open music mode, the Playlist from your previous music mode session is displayed.

Adding a Selection to the Playlist

If the notebook is set to play audio CDs and an audio CD is in the optical drive, no action is necessary. The notebook displays all tracks on the audio CD on the Playlist.

If the notebook is set to play MP3 files from the Shared Music folder on your hard drive, the contents of the Shared Music folder are displayed on the Source directory. Only MP3 files, not folders, can be added to the Playlist.

- To add an MP3 file from the Source directory to the Playlist, select the MP3 file, and then press **ok**.
- To add an item in a subfolder on the Source directory to the Playlist, you must open the folder before you can add the item to the playlist.
- To open a subfolder, select the folder, select the back control on the music console, and then press **ok**. (The back control is on the left-hand side of the music console and is identified with an arrow-and-folder icon.)

Navigating the Playlist

- » To scroll upward or downward page-by-page through the Playlist, select the page up or page down control on the *right-hand* side of the music console and then press **ok**.

The location and quantity of items on the Playlist are displayed on the Playlist counter on the music console. The Playlist counter is on the *right-hand* side of the music console.

- The upper number of the counter displays the location of the selected item on the Playlist. For example, if the third item listed on your Playlist is selected, the upper number is 3.
- The lower number of the counter displays the quantity of items listed on the Playlist.

Removing Items from the Playlist

To remove items from Playlist, use the clear selection and clear all controls on the right-hand side of the music console. The icons for the clear selection control ❶ and the clear all control ❷ are identified in the following illustration.



- To remove an item from the Playlist, select the item, select the clear selection control, and then press **ok**.
- To remove all items from the Playlist, select the clear all control, and then press **ok**.

Repeating or Shuffling the Play Sequence

At the default setting, selections from the Playlist are played in the sequence shown on the Playlist. After the final selection on the Playlist has played, play stops.

- To play selections from the Playlist in random sequence, select the shuffle control and then press **ok**.
- To set the notebook to repeat the Playlist after the final selection on the Playlist has played, select the repeat control, and then press **ok**.

Shuffle and repeat functions can be combined. Select both at the same time to repeat play of the shuffled selection.

The shuffle control and repeat control are on the right-hand side of the music console. The icons for the shuffle control ❶ and the repeat control ❷ are identified in the following illustration.



DVD Mode

Playing a DVD

To play a DVD or video CD in QuickPlay:

- A supported DVD or video CD must be in the optical drive.
- The media tray on the optical drive must be closed.
- and –
- The notebook must be in DVD mode.

Selecting a Supported Video Disc

The notebook supports the following types of video discs in QuickPlay DVD mode:

- DVD-Video (read-only DVD disc)
- VCD (video CD)
- SVCD (Super Video CD)

If the region setting on a supported DVD does not match the region setting on your optical drive, a message about changing the DVD region setting on your optical drive is displayed.

Instructions for changing the region setting on your optical drive are provided in the [“Changing DVD Region Settings”](#) section in [Chapter 5, “Multimedia.”](#)

Finding Disc Insertion and Removal Instructions

For information about inserting a disc into the optical drive, see the [“Inserting or Removing a Disc”](#) section in [Chapter 5, “Multimedia.”](#) The section includes instructions for opening the media tray while the notebook is turned off.

Opening DVD Mode

- » To turn on the notebook in DVD mode or to switch the notebook from music mode to DVD mode, press the DVD button.



If you press the DVD button while

- A supported DVD or video CD is in the optical drive, the disc plays.
- A supported DVD or video CD is not in the optical drive, the message, “Please Insert Disc or Press Music Button” is displayed. When the message is displayed, either
 - ☐ Insert a supported DVD or video CD into the optical drive
 - or –
 - ☐ If an audio CD is in the drive, press the music button to switch the notebook to music mode and play the CD.

Pressing the Play/Pause Button

If the notebook is in DVD mode and an inserted DVD or video CD does not play, press the play/pause button, identified in the following illustration. For more information about the play/pause button and other media controls see the “[Media Controls](#)” section later in this chapter.



Using DVD Menus

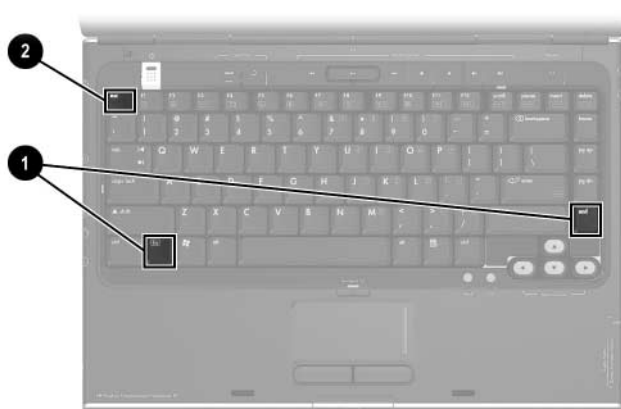
- To display the menu of a DVD or video CD while the disc is playing, press the DVD button.
- To open an item from a DVD or a video CD menu, select the item, and then press **ok**.

Displaying the Title and Chapter of a DVD

- » To display the title and chapter of a DVD or a video CD while the disc is playing, press **fn+end** ❶.

The information display is cleared after 5 seconds. To close the display manually, press **esc** ❷.

The information display does not affect the playback.



Media Controls

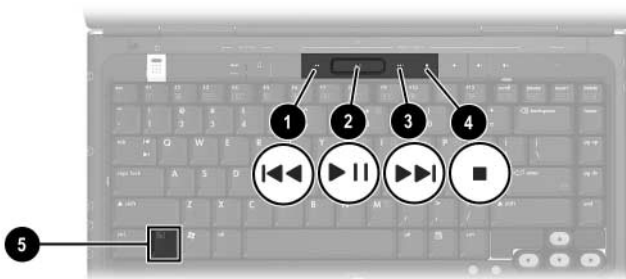
The 4 left-hand buttons control media activity. The 3 right-hand buttons control volume.

Media Activity Buttons

Using the Media Activity Buttons

When the notebook is in QuickPlay, you can use the 4 media activity buttons to control the play of discs and of items on the music console Playlist.

- To skip to the previous selection, press the previous/rewind button ❶.
- To play or pause a selection, press the play/pause button ❷.
- To skip to the next selection, press the next/fast forward button ❸.
- To stop the current media activity, such as playing or rewinding, press the stop button ❹.
- To rewind a disc or return to the beginning of the current selection, press **fn** ❺ + the previous/rewind button ❶.
- To fast forward, press **fn** ❺ + the next/fast forward button ❸.



For information about the Playlist, see the [“Managing the Playlist”](#) section earlier in this chapter. For information about using the media activity buttons in Windows, see the [“Controlling Disc Activity”](#) section in [Chapter 5, “Multimedia.”](#)

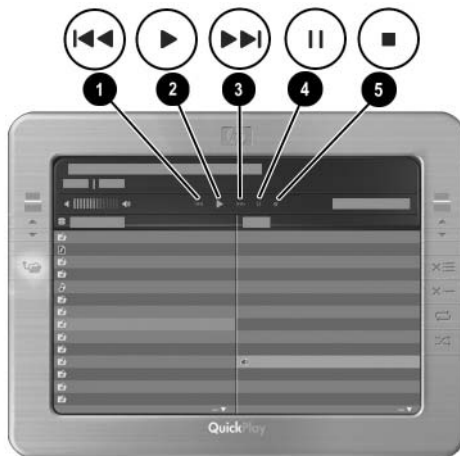
Using the Music Console Media Activity Status Indicators

When the notebook is in music mode, all disc activities except fast forward and rewind are indicated on the music console.

The icons on the previous ❶, play ❷, next ❸, pause ❹, and stop ❺ indicators correspond to the icons on the media activity buttons.

These 5 status indicators are turned on when the notebook is performing the functions they represent. For example, when play is paused, the pause indicator is turned on.

For more information about the music console, see the “[Music Mode](#)” section earlier in this chapter.



Volume Buttons

Using the Volume Buttons

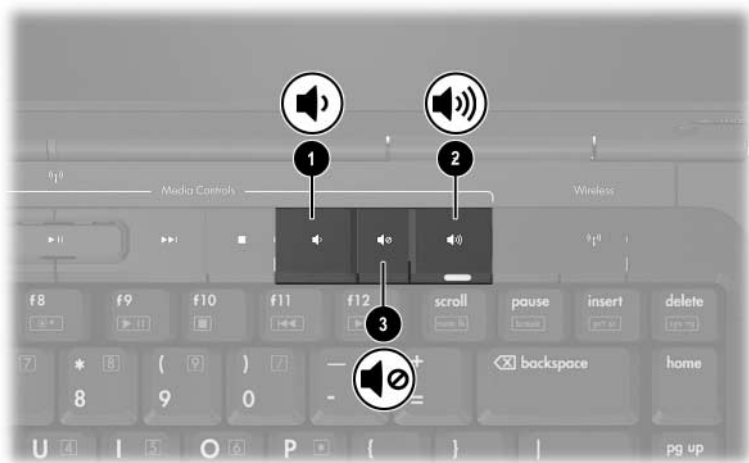
You can use the volume buttons to control volume in both QuickPlay and Windows.

- To decrease volume, press the volume down button ❶.
- To increase volume, press the volume up button ❷.
- To mute volume, press the volume mute button ❸.

When volume is muted, the mute light (on the volume mute button) is turned on. When volume is restored, the mute light is turned off.

- To restore volume, press the volume down, volume up, or volume mute button.

For information about the software volume controls available when the notebook is in Windows, see the [“Volume Controls”](#) section in [Chapter 5, “Multimedia.”](#)



Displaying Volume Information

Two QuickPlay volume indicators show the current QuickPlay volume setting and respond to incremental volume changes as you use the volume up and volume down buttons.

- To display volume information when the notebook is in DVD mode, press **fn+end** to display volume level.

This display is cleared after 5 seconds by the system. To close the display manually, press **esc**.

Displaying volume information does not affect playback.

- When the notebook is in music mode, no action is necessary. Volume status is displayed on the music console volume bar. The volume bar is identified in the following illustration.

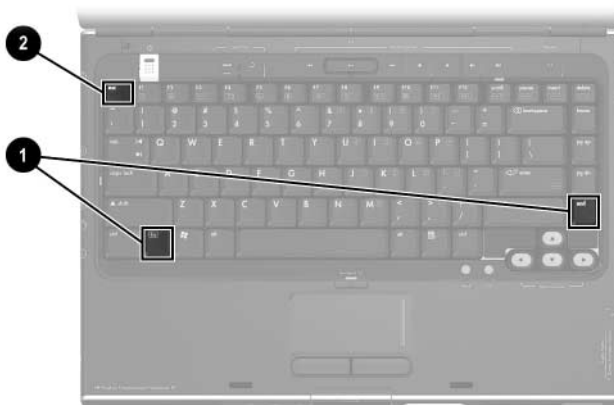


Battery Information Display

When the notebook is in QuickPlay, Windows battery charge displays are unavailable.

To display battery charge and other information in QuickPlay, press **fn+end** ❶. The display is cleared after 5 seconds. To close the display manually, press **esc** ❷.

Opening or closing the information display does not affect playback.



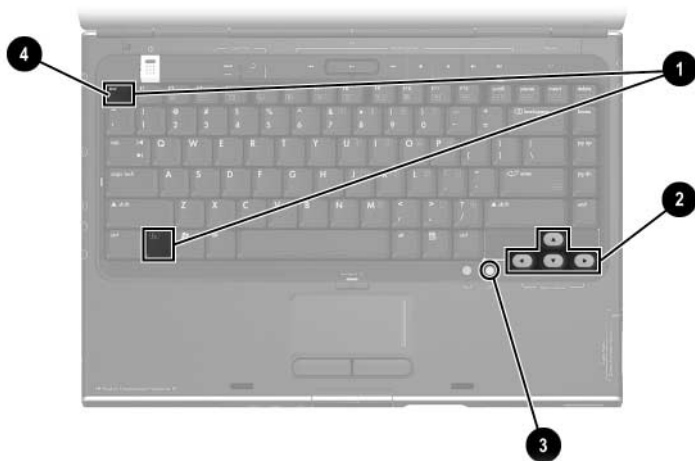
When the notebook is in DVD mode, the display includes additional information.

- When the notebook is in DVD mode, the information display shows the
 - ☐ Percent of charge remaining in the battery pack.
 - ☐ Current volume level.
 - ☐ Title and chapter of a DVD or video CD that is playing.
- When the notebook is in music mode, the information display shows only the percent of charge remaining in the battery pack. Volume information and information about a CD or a music selection playing from your hard drive are displayed on the music console.

QuickPlay Preferences

Navigating the Player Setup Menus

To navigate and set preferences on the Player Setup menus described in the following sections, use the **fn+esc** hotkey ❶, the arrow keys ❷, the **ok** button ❸, and the **esc** key ❹.



Changing the QuickPlay Language

To set or change the language of QuickPlay Setup menus or onscreen displays:

1. While the notebook is in QuickPlay, press **fn+esc** to display the Player Setup menu.
2. Select the **General Settings** menu, and then press **ok**.
3. Select **Menu Language**, and then press **ok**. Then
 - ❑ To set QuickPlay displays to English, select **English**, and then press **ok**.
 - ❑ To set QuickPlay displays to the default language, select the default language, and then press **ok**.
4. To close the menu display, press **esc**.

Enabling and Disabling Auto Turn Off

Auto turn off is a QuickPlay feature that can turn off the notebook after 5 minutes of inactivity. For example, the notebook can remain on in QuickPlay for 5 minutes after playing the last track or chapter of a CD or DVD, and then be turned off by the system.

Auto turn off is enabled by default.

To set an auto turn off preference:

1. While the notebook is in QuickPlay, press **fn+esc** to display the Player Setup menu.
2. Select the **General Settings** menu, and then press **ok**.
3. Select **Auto Turn Off**, and then press **ok**. Then
 - ☐ To enable auto turn off, select **On**, and then press **ok**.
 - ☐ To disable auto turn off, select **Off**, and then press **ok**.
4. To close the menu display, press **esc**.

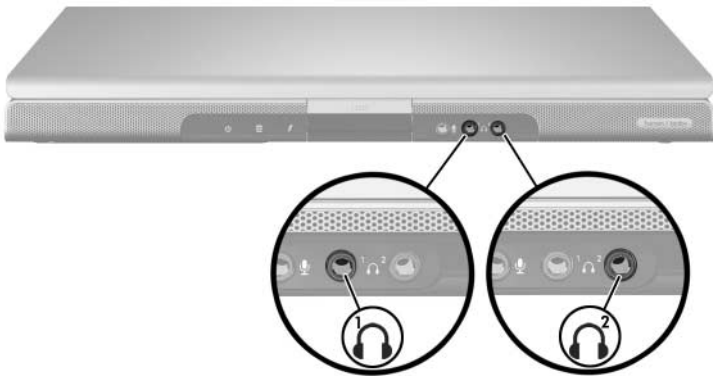
Setting Audio Output Preferences



The wireless button is inactive during QuickPlay. The QuickPlay feature can only be used with the internal speakers or devices connected to the headphone jack. Audio devices/accessories, such as Bluetooth headphones that require the operating system, will not work in QuickPlay.

The notebook is set by default to transmit *analog* audio signals through the 2 audio-out (headphone) jacks, illustrated below. Devices that connect to an audio-out jack include headphones and speakers.

For more information about using the audio-out jacks, see the [“Using the Audio-Out \(Headphone\) Jacks”](#) section in [Chapter 5, “Multimedia.”](#)



The notebook can also transmit S/PDIF *digital* audio signals through the audio-out jacks. To transmit S/PDIF signals to an external device, the system must include an optional HP expansion product, such as an Expansion Base or an HP xc2000 Notebook All-in-One Media Cable.

Refer to the manufacturer's documentation for more information about these devices.

To set the notebook to transmit S/PDIF audio signals while the notebook is in QuickPlay, you must set an S/PDIF preference on the Player Setup menu.

An audio preference set on the Player Setup menu is retained after you close QuickPlay, but can be changed at any time.

To set a QuickPlay audio preference:

1. While the notebook is in QuickPlay, press **fn+esc** to display the Player Setup menu.
2. Select **Audio Output**, and then press **ok**. Then
 - ❑ To set the notebook to transmit S/PDIF audio signals, select **S/PDIF**, and then press **ok**.
 - ❑ To set the notebook to transmit analog audio signals, select **Analog**, and then press **ok**.
3. To close the display, press **esc**.

Setting TV-Out and TV System Preferences

To use the notebook with an external video device while the notebook is in QuickPlay, you might need to set a

- TV-Out preference to enable the notebook to send S-Video or composite video signals to the external device.
- TV System preference to set the notebook to an alternate color television format.

Setting TV Out Preferences

Use the TV Out setting to set the notebook to send S-Video or composite video transmissions to an external device while the notebook is in DVD mode.

- Devices which require S-Video transmissions include televisions, camcorders, VCRs, and video capture boards with S-Video-in jacks.
- Devices which require composite transmissions include televisions, camcorders, VCRs, and video capture boards with composite video-in jacks. Composite video devices can be connected to the notebook only by using an HP expansion product, such as an HP xc2000 Notebook All-in-One Media Cable.

S-Video and composite video transmissions are supported in QuickPlay DVD mode, but not in QuickPlay music mode. When the notebook is set to transmit S-Video or composite video transmissions, the video image is displayed on the external device only and cannot be displayed on the notebook display.

To set QuickPlay TV Out preferences:

1. While the notebook is in QuickPlay, press **fn+esc** to display the Player Setup menu.
2. Select the **General Settings** menu, and then press **ok**.
3. Select **TV Out**, and then press **ok**. Then:
 - ❑ To set the notebook to send S-Video or composite video transmissions, select **Enable**, and then press **ok**.
 - ❑ To prevent the notebook from sending S-Video or composite transmissions, select **Disable**, and then press **ok**.
4. To close the menu display, press **esc**.

Setting TV System Preferences

Use the TV System settings to set the color television format of the notebook to NTSC or PAL.

Transmissions between the notebook and a color television set can occur only when the notebook and the television are using the same color television format.

The NTSC format is common in the United States, Canada, Japan, and South Korea. The PAL format is common in Europe, China, and some African and Middle Eastern countries. Among Central American and South American countries, the use of color television formats varies.

In some regions, variations of NTSC and PAL are used. For example PAL-M is common in Brazil. The TV System PAL setting supports PAL-M, PAL-X, and other PAL formats. The TV System NTSC setting supports NTSC-X, NTSC-M, and other NTSC formats.

The default notebook TV System setting was set when you selected your regional preferences during software setup. For example, if you accepted the preset regional preferences during software setup, your default TV System setting is set to the color television format most commonly used in the country in which you purchased the notebook. For more information about regional preferences, refer to the:

- “Select Your Regional Preferences” section in the printed *Getting Started* guide included with your notebook.

– or –

- “Setting Regional Preferences” section in your *Help and Support Guide*. A printed edition of the *Help and Support Guide* is included with your notebook. This guide is also available on your *Notebook Documentation CD*.

To set QuickPlay TV System preferences from the QuickPlay Player Setup menu:

1. While the notebook is in QuickPlay, press **fn+esc** to display the Player Setup menu.
2. Select the **General Settings** menu, and then press **ok**.
3. Select **TV System**, and then press **ok**. Then
 - ❑ To set the notebook color television format to NTSC, select **NTSC**, and then press **ok**.
 - ❑ To set the notebook color television format to PAL, select **PAL**, and then press **ok**.
4. After you select NTSC or PAL and then press **ok**, the notebook turns off.

Your preference is in effect when you turn the notebook back on in QuickPlay.

Setting Picture Property Preferences

You can adjust the color, contrast, and brightness values of the video images displayed while the notebook is in QuickPlay DVD mode. You can also return these settings to their default values with a single procedure.

Setting Color Preferences

To adjust the red and green values in QuickPlay video displays:

1. While the notebook is in QuickPlay, press **fn+esc** to display the Player Setup menu.
2. Select the **Picture Properties** menu, and then press **ok**.
3. Select **Color**, and then press **ok**. Then
 - ❑ To increase red values, use the arrow keys to move the indicator toward the right-hand side of the color indicator bar, and then press **ok**.
 - ❑ To increase green values, use the arrow keys to move the indicator toward the left-hand side of the color indicator bar, and then press **ok**.
4. To close the display, press **esc**.

Setting Contrast Preferences

To adjust the contrast of QuickPlay video displays:

1. While the notebook is in QuickPlay, press **fn+esc** to display the Player Setup menu.
2. Select the **Picture Properties** menu, and then press **ok**.
3. Select **Contrast**, and then press **ok**. Then
 - ❑ To increase contrast, use the arrow keys to move the indicator toward the right-hand side of the contrast indicator bar, and then press **ok**.
 - ❑ To decrease contrast, use the arrow keys to move the indicator toward the left-hand side of the contrast indicator bar, and then press **ok**.
4. To close the display, press **esc**.

Setting Brightness Preferences

Decreasing brightness conserves power. If you are using QuickPlay while the notebook is running on a battery pack, you might want to decrease brightness to extend the run time of the battery.

For more information about conserving power, see the [“Conserving Battery Pack Power”](#) section in [Chapter 4, “Power.”](#)

To adjust the brightness of QuickPlay video displays:

1. While the notebook is in QuickPlay, press **fn+esc** to display the Player Setup menu.
2. Select the **Picture Properties** menu, and then press **ok**.

3. Select **Brightness**, and then press **ok**. Then
 - ❑ To increase brightness, use the arrow keys to move the indicator toward the right-hand side of the brightness indicator bar, and then press **ok**.
 - ❑ To decrease brightness, use the arrow keys to move the indicator toward the left-hand side of the brightness indicator bar, and then press **ok**.
4. To close the display, press **esc**.

Brightness can also be adjusted in both QuickPlay and Windows by pressing the **fn+f8** hotkey to increase brightness and by pressing the **fn+f7** hotkey to decrease brightness. For more information about using **fn+f7**, **fn+f8**, and other hotkeys, see the “Hotkeys” sections in [Chapter 3](#), “Keyboard.”

Restoring Picture Properties Default Settings

To restore the color, contrast, and brightness settings on the Picture Properties menu to their default settings:

1. While the notebook is in QuickPlay, press **fn+esc** to display the Player Setup menu.
2. Select the **Picture Properties** menu, and then press **ok**.
3. Select **Reset to Default**, and then press **ok**.
4. To close the display, press **esc**.

Restoring Player Setup Menu Default Settings

To restore all default settings on the Player Setup menu:

1. While the notebook is in QuickPlay, press **fn+esc** to display the Player Setup menu.
2. Select the **General Settings** menu, and then press **ok**.
3. Select **Reset to Default**, and then press **ok**.
4. To close the menu display, press **esc**.

Displaying the Image on an External Device

In most configurations, when the notebook is in QuickPlay and an optional VGA monitor is connected to the monitor port, press the **fn+f4** hotkey to toggle the image between the notebook display only and simultaneous display on both the notebook and the monitor.

When the notebook is in QuickPlay DVD mode and TV-Out is enabled on the Player Setup menu, the image is displayed on the connected external device only and cannot be switched to the notebook display.

Enabling TV-Out sets the notebook to transmit S-Video or composite video signals to an optional external device, such as a monitor or a television. For more information and instructions for enabling TV-Out, see the [“Setting TV-Out and TV System Preferences”](#) section earlier in this chapter.

When the notebook is in Windows, the **fn+f4** hotkey has additional functions. For information about using the **fn+f4** hotkey and other hotkeys in both QuickPlay and Windows, see the [“Hotkeys”](#) section in [Chapter 2, “QuickPlay.”](#)

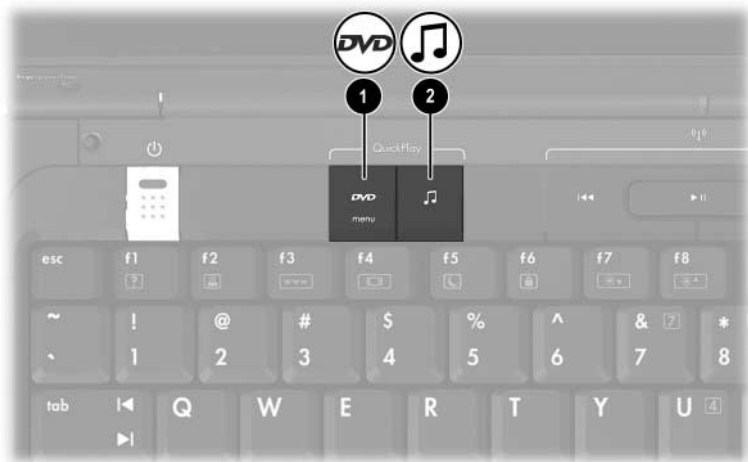
Switching Between Music Mode and DVD Mode

When the notebook is in QuickPlay:

- To switch from music mode to DVD mode, press the DVD button ❶.
- To switch from DVD mode to music mode, press the music button ❷.

It is not necessary to stop a CD or DVD that is playing before switching the notebook between music mode and DVD mode.

For more information about opening music mode, see the [“Playing an Audio CD”](#) and [“Playing MP3 Files from Your Hard Drive”](#) sections earlier in this chapter. For more information about opening DVD mode, see the [“Playing a DVD”](#) section earlier in this chapter.



Switching Between QuickPlay and Windows

Because QuickPlay is not a part of your Windows operating system:

- To switch the notebook from QuickPlay to Windows, you must turn off QuickPlay and then start Windows.
- To switch the notebook from Windows to QuickPlay, you must initiate Hibernation or shut down Windows, and then open QuickPlay.

If you initiate Hibernation and then open QuickPlay, the hibernation file is retained and can be restored after you complete your QuickPlay session and turn off QuickPlay.



For information about Hibernation and about starting or shutting down Windows, see the [“Standby, Hibernation and Shutdown Overviews”](#) and [“Standby, Hibernation and Shutdown Procedures”](#) sections in [Chapter 4, “Power.”](#)

- » To turn off QuickPlay from either music mode or DVD mode, press the power button.

TouchPad

Identifying TouchPad Components

The TouchPad includes the following components:

- | | |
|-------------------|--------------------------------------|
| ❶ TouchPad | ❷ TouchPad vertical scrolling region |
| ❸ TouchPad light | ❹ Left and right TouchPad buttons |
| ❺ TouchPad button | |



Using the TouchPad

In Windows the TouchPad provides the navigation, selection, and scroll functions of an optional external mouse. In QuickPlay the TouchPad is inactive.

In Windows:

- To move the pointer, slide your finger across the TouchPad surface in the direction you want to move the pointer.
- To execute the click functions of the left or right button on an external mouse, press the left or right TouchPad button.
- To scroll, place your finger onto the scrolling region, and then slide your finger upward or downward. (Sliding your finger from the TouchPad to the scrolling region without first lifting your finger from the TouchPad and then placing it on the scrolling region will not activate the scrolling region.)
- To enable or disable the TouchPad, press the TouchPad button. When the TouchPad is enabled, the TouchPad light is on.

The TouchPad is enabled when the notebook is turned on. If you work with keystrokes rather than mouse actions, you might prefer to disable the TouchPad to prevent accidental TouchPad activity.

Setting TouchPad Preferences

In the Windows Mouse Properties window you can

- Adjust basic pointing device settings such as click speed, pointer speed and shape, and mouse trails.
- Configure the right and left TouchPad buttons for right-handed or left-handed use. These buttons are set by default for right-handed use.

To access the Mouse Properties window, select **Start > Control Panel > Printers and Other Hardware > Mouse**.



All Windows instructions in your notebook documentation describe Microsoft Windows XP procedures based on the default Windows XP category view. For information about switching between Windows XP classic view and Windows XP category view, select **Start > Help and Support > Customizing your computer > Files, folders, and programs > Use Windows classic folders**.

In the TouchPad Properties window you can access additional TouchPad preferences.

To access the TouchPad Properties window, use the TouchPad to select **Start > Control Panel > Printers and Other Hardware > Mouse > Device Settings**, and then select the **Settings** button. (If you follow this path using an optional external mouse, the TouchPad Properties window might be unavailable.)

Among the preferences available in the TouchPad Properties window are

- TouchPad Tapping, which enables you to tap the TouchPad once to select an item or twice to double-click an item.

To access TouchPad Tapping settings, select **Tapping**.

- Edge Motion, which sets the TouchPad to continue cursor movement when your finger reaches the edge of the TouchPad.

To access Edge Motion settings, select **Pointer Motion**.

- Long Distance Scrolling, which sets the scrolling region to continue scrolling when your finger reaches the end of the scrolling region.

To access Long Distance Scrolling, select **Virtual Scrolling**.

- PalmCheck, which helps keep the TouchPad from being accidentally activated while you are using the keyboard.

To access PalmCheck, select **Sensitivity**.

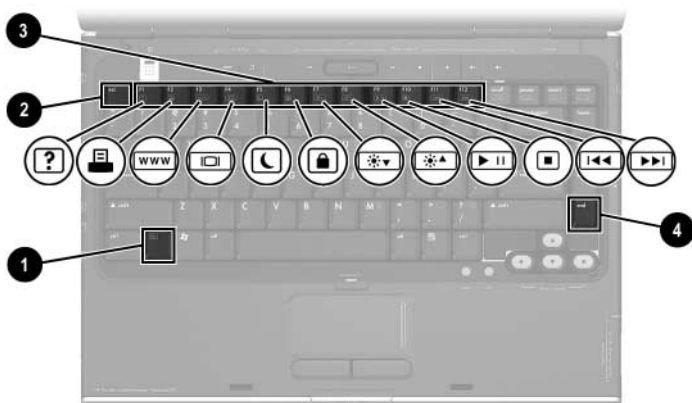
Hotkeys

Identifying Hotkeys

Hotkeys are preset combinations of the **fn** key ❶, the **esc** key ❷, one of the function keys ❸, or the **end** key ❹.

The icons on the **f1** through **f12** function keys represent their hotkey functions.

The Windows and QuickPlay functions of all hotkeys are described in the following sections.



Hotkey Quick Reference

The following table identifies the default hotkey functions. The function of the **fn+f5** hotkey can be changed. For instructions, see the “[Setting Other Power Preferences](#)” section in [Chapter 4](#), “Power.”

| Default Function | Hotkey |
|---|--------------------|
| Opens Help and Support Center.* | fn+f1 |
| Opens print options window.* | fn+f2 |
| Opens default Internet browser.* | fn+f3 |
| Switches the image among displays. | fn+f4 |
| Initiates Standby.* | fn+f5 |
| Initiates QuickLock.* | fn+f6 |
| Decreases screen brightness. | fn+f7 |
| Increases screen brightness. | fn+f8 |
| Plays, pauses, or resumes an audio CD or DVD. | fn+f9 |
| Stops an audio CD or DVD. | fn+f10 |
| Plays the previous track or chapter on an audio CD or DVD. | fn+f11 |
| Plays the next track or chapter on an audio CD or DVD. | fn+f12 |
| Displays battery, volume, and disc information. ^{†‡} | fn+end |
| Displays system information. [†] | fn+esc |
| Fast forward [‡] | fn+next |
| Rewind [‡] | fn+previous |

*Not available in QuickPlay.

[†]To clear the information display, press **esc**.

[‡]Available only in QuickPlay.

Using Hotkey Procedures

Using Hotkeys on the Internal Keyboard

To use a hotkey command on the notebook keyboard, use either of the following procedures:

- Briefly press **fn**, and then briefly press the second key of the hotkey command.
- Press and hold down **fn**, briefly press the second key of the hotkey command, and then release both keys at the same time.

Using Hotkeys on an External Keyboard

To use a hotkey command on an external keyboard, press the **scroll lock** key twice, then the second key only of the hotkey combination. For example, to use the **fn+f7** command on an external keyboard, press **scroll lock+scroll lock+f7**.

Using Hotkey Commands

Open Help and Support Center (fn+f1)

In Windows the **fn+f1** hotkey opens the Help and Support Center. In QuickPlay the **fn+f1** hotkey is inactive.

In addition to providing information about your Windows operating system, the Help and Support Center provides

- Information about your notebook, such as model and serial number, installed software, hardware components, and specifications.
- Answers to questions about using your notebook.
- Tutorials to help you learn to use notebook and Windows features.

- Updates for your Windows operating system, drivers, and the software provided on your notebook.
- Checkups for notebook functionality.
- Automated and interactive troubleshooting, repair solutions, and system recovery procedures.
- Links to HP support specialists.

In Windows you can also access the Help and Support Center by selecting **Start > Help and Support**.

Open Print Window (fn+f2)

In Windows the **fn+f2** hotkey opens the print options window of the active Windows application. In QuickPlay the **fn+f2** hotkey is inactive.

Open Internet Explorer (fn+f3)

In Windows the **fn+f3** hotkey opens Internet Explorer. In QuickPlay, the **fn+f3** hotkey is inactive.

In Windows:

- Until you have set up your Internet or network services, the **fn+f3** hotkey opens the Windows Internet Connection wizard. For information about using the wizard and other Internet connection methods, refer to the printed *Getting Started* guide included with your notebook.
- After you have set up your Internet or network services and your Web browser home page, you can use the **fn+f3** hotkey to quickly access your home page and the Internet.

Switch Image (fn+f4)

Using fn+f4 in Windows

In Windows the **fn+f4** hotkey switches the image among display devices connected to the system. For example, if a monitor is connected to the notebook through the monitor port, each time you press the **fn+f4** hotkey the image switches among the notebook display, the monitor display, and a simultaneous display on both the notebook and the monitor.

Most external monitors receive video information from the notebook using the external VGA video standard. The **fn+f4** hotkey can also toggle images among other devices receiving video information from the notebook.

The following video transmission types, with examples of devices that use them, are supported by the **fn+f4** hotkey in Windows:

- LCD (notebook display)
- External VGA (most external monitors)
- S-Video (televisions, camcorders, VCRs, and video capture boards with S-Video-in jacks)
- Composite video (televisions, camcorders, VCRs, and video capture boards with composite video-in jacks)



Composite video devices can be connected to the system only by using an HP expansion product, such as an HP xc2000 Notebook All-in-One Media Cable.

Using fn+f4 in QuickPlay

In QuickPlay the **fn+f4** hotkey affects only the notebook display and the display on an optional VGA monitor connected to the monitor port.

Pressing the **fn+f4** hotkey switches the image between the notebook display only and simultaneous display on both the notebook and the monitor. The image cannot be displayed on the monitor without also being displayed on the notebook.

When the notebook is in QuickPlay DVD mode and TV-Out is enabled, the image is displayed on the external device only and cannot be switched to the notebook display. For more information about TV-Out, see the [“Setting TV-Out and TV System Preferences”](#) section in [Chapter 2, “QuickPlay.”](#)

As in Windows, a composite video device can be connected to the system only by using an HP expansion product, such as a Notebook All-in-One Media Cable xc2000.

Initiate Standby (fn+f5)

In Windows the **fn+f5** hotkey is set by default to initiate Standby. In QuickPlay the **fn+f5** hotkey is inactive.

When Standby is initiated, your work is saved in random access memory (RAM), the screen is cleared, and power is conserved. While the notebook is in Standby, the power/standby light and the power button light blink.

- To initiate Standby, the notebook must be on. If the notebook is in Hibernation, you must restore from Hibernation before you can initiate Standby.
- To resume from Standby, briefly press the power button, use the TouchPad, press any key on the keyboard, or press the music button, DVD button, or a TouchPad button. To restore from Hibernation, briefly press the power button.

The function of the **fn+f5** hotkey can be changed. For example, you can set the **fn+f5** hotkey to initiate Hibernation instead of Standby. In all Windows operating system windows, references to the *sleep button* apply to the **fn+f5** hotkey.

For information about changing the function of the **fn+f5** hotkey, see the [“Setting Other Power Preferences”](#) section in [Chapter 4, “Power.”](#)

For more information about using Standby and Hibernation in both Windows and QuickPlay, see [Chapter 4, “Power.”](#)

Initiate QuickLock (fn+f6)

In Windows the **fn+f6** hotkey initiates the QuickLock security feature. In QuickPlay the **fn+f6** hotkey is inactive.

QuickLock protects your work by displaying the operating system Log On window. While the Log On window is displayed, the notebook cannot be accessed until a Windows user password or a Windows administrator password is entered.

Before you can use QuickLock, you must set a Windows user password or a Windows administrator password. For instructions, refer to the Help and Support Center. To access the Help and Support Center, press the **fn+f1** hotkey or select **Start > Help and Support**.

To use QuickLock, press **fn+f6** to display the Log On window and lock the notebook. Then follow the instructions on the screen to enter your Windows user password or your Windows administrator password and access the notebook.

For information about combining Windows passwords with HP passwords, see the [“HP and Windows Password Guidelines”](#) section in [Chapter 7, “Security.”](#)

Decrease Brightness (fn+f7)

In Windows and QuickPlay the **fn+f7** hotkey decreases the brightness of the notebook screen. The longer you hold down the **fn+f7** hotkey, the more the screen dims. Decreasing screen brightness conserves power.

To increase screen brightness, press the **fn+f8** hotkey.

Increase Brightness (fn+f8)

In Windows and QuickPlay the **fn+f8** hotkey increases the brightness of the notebook screen. The longer you hold down the **fn+f8** hotkey, the more the screen brightens.

To decrease screen brightness, press the **fn+f7** hotkey.

Media Activity Hotkeys (fn+f9 through fn+f12)



The 4 left-hand buttons control media activity. The 3 right-hand buttons control volume.

The following 4 media activity hotkeys can be used in both Windows and QuickPlay to control the play of an audio CD or a DVD.

To control the play of a video CD in Windows, use the media activity controls in your Windows video CD player application.

In both Windows and QuickPlay, you can also control the play of an audio CD, a DVD, a video CD, or an MP3 file by using the media activity buttons on your notebook.

The media activity buttons are described in the [“Using the Media Activity Buttons”](#) section in [Chapter 5, “Multimedia.”](#)

Play, Pause, or Resume an Audio CD or a DVD (fn+f9)

- If the audio CD or the DVD is not playing, press the **fn+f9** hotkey to begin or resume the play.
- If the audio CD or the DVD is playing, press the **fn+f9** hotkey to pause the play.

Stop an Audio CD or a DVD (fn+f10)

The **fn+f10** hotkey stops the play of an audio CD or a DVD.

You must stop a CD or DVD that is playing before you can remove it from the optical drive. For more information about inserting or removing a CD or DVD, see the [“Inserting or Removing a Disc”](#) section in [Chapter 5, “Multimedia.”](#)

Play Previous Track or Chapter of an Audio CD or a DVD (fn+f11)

The **fn+f11** hotkey plays the previous track of an audio CD or the previous chapter of a DVD that is playing.

Play Next Track or Chapter of an Audio CD or a DVD (fn+f12)

The **fn+f12** hotkey plays the next track of an audio CD or the next chapter of a DVD that is playing.

Display Battery, Volume, and Disc Information (fn+end)

In Windows the **fn+end** hotkey is inactive.

In QuickPlay the **fn+end** hotkey opens the QuickPlay information display. The information display is cleared after 5 seconds. To close the display manually, press **esc**.

Opening the information display does not affect the play of a CD, DVD, or a music selection stored on your hard drive.

- In QuickPlay DVD mode the **fn+end** information display shows the
 - ☐ Percent of charge remaining in the battery pack.
 - ☐ Current volume level.
 - ☐ Title and chapter of a DVD or video CD that is playing.
- In QuickPlay music mode the **fn+end** information display shows only the percent of charge remaining in the battery pack. Volume information and information about a CD or a music selection playing from your hard drive are displayed on the music console.

In QuickPlay DVD mode, the battery, volume, and disc information is displayed on the screen along with the DVD image. In QuickPlay music mode, the battery information is displayed on the screen along with the music console.

For more information about the music console, see the “[Music Mode](#)” section in [Chapter 2, “QuickPlay.”](#)

Display System Information (fn+esc)

The **fn+esc** hotkey function in Windows is different from the **fn+esc** hotkey function in QuickPlay.

- In Windows the **fn+esc** hotkey displays information about system hardware components and software version numbers.

In the Windows **fn+esc** display, the version of the system BIOS (basic input-output system) is displayed as the BIOS date. On some notebook models, the BIOS date is displayed in decimal format. The BIOS date is sometimes called the *system ROM version number*.

For information about updating the system ROM, see the “[Software Updates](#)” section in [Chapter 9, “Software Updates and Recoveries and System Software.”](#)

- In QuickPlay the **fn+esc** hotkey displays the Player Setup menu.

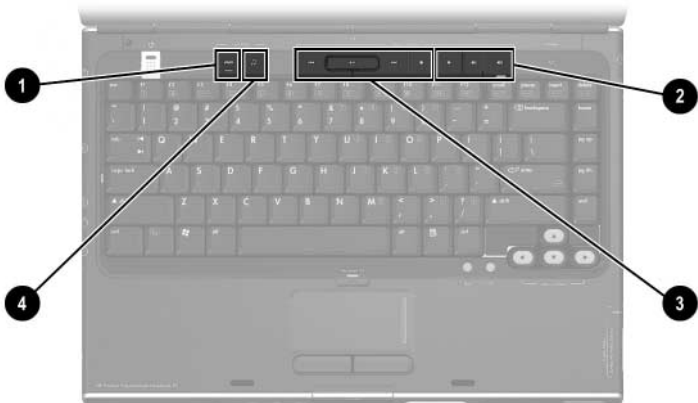
To clear the **fn+esc** display in either Windows or QuickPlay, press **esc**.

For more information about the QuickPlay Player Setup menu, see the “[QuickPlay Preferences](#)” section in [Chapter 2, “QuickPlay.”](#)

QuickPlay and Media Controls Buttons

The buttons above the keyboard that are labeled *QuickPlay* and *media controls* are described in other places in this guide. These buttons are identified in the following illustration. Links to information about these buttons are provided later in this section.

- ❶ DVD button
- ❷ Volume buttons
- ❸ Media activity controls
- ❹ Music button



Finding DVD and Music Button Information

To find

- A summary of DVD and music button functions in both Windows and QuickPlay, see the “[DVD Button](#)” and “[Music Button](#)” sections in [Chapter 1, “Hardware.”](#)
- Information about DVD and music button functions in Windows, see “[Opening Default Windows Multimedia Applications](#)” in [Chapter 5, “Multimedia.”](#)
- Information about changing the Windows functions of the DVD and music button, see the “[Quick Launch Buttons Control Panel](#)” section in [Chapter 9, “Software Updates and Recoveries and System Software.”](#)
- Information about DVD and music button functions in QuickPlay, see [Chapter 2, “QuickPlay.”](#)

Finding Media Activity Button Information

To find

- Information about using the media activity buttons in Windows, see the “[Using the Media Activity Buttons](#)” section in [Chapter 5, “Multimedia.”](#)
- Information about using the media activity buttons in QuickPlay, see the “[Setting TV-Out and TV System Preferences](#)” section in [Chapter 2, “QuickPlay.”](#)

Finding Volume Button Information

To find

- Information about using the volume buttons in Windows, see the “[Volume Controls](#)” section in [Chapter 5, “Multimedia.”](#)
- Information about using the volume buttons in QuickPlay, see the “[Volume Buttons](#)” section in [Chapter 2, “QuickPlay.”](#)

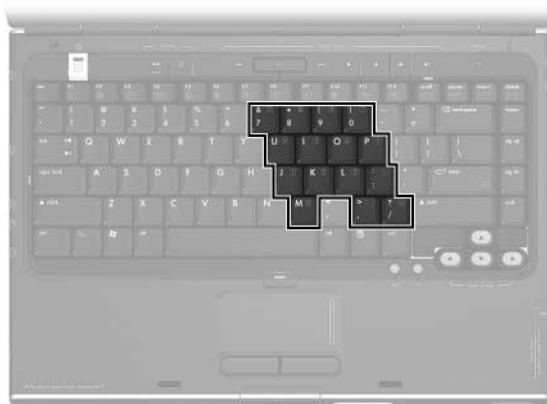
Keypads

You can do keypad work with your notebook by using the keypad embedded in the notebook keyboard or by connecting an optional external keypad. The keypad embedded in the notebook keyboard is called the *internal* keypad.

The internal keypad cannot be used while an external keypad is connected to the notebook.

Using the Internal Keypad

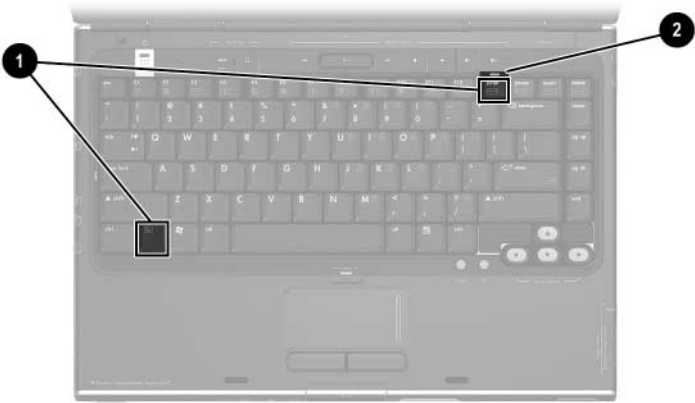
The internal keypad consists of 15 keys that can be used like the keys on an external keypad. When the internal keypad is turned on, each keypad key performs the functions indicated by the icon in the upper right corner of the key. In QuickPlay, the internal keypad is inactive.



Turning the Internal Keypad On and Off

When the internal keypad is off, press **fn+num lk** ❶ to turn the keypad on. The num lock light ❷ is turned on.

When the internal keypad is on, press **fn+num lk** to turn the keypad off. The num lock light is turned off.



Switching the Functions of Keypad Keys

You can temporarily switch the functions of an internal keypad key between its standard function and its keypad function.

- To use a key on the keypad as a keypad key while the keypad is turned off, press and hold **fn** while pressing the key.
- To use a key on the keypad as a standard key while the keypad is turned on:
 - Press and hold **fn** to type with the key in lowercase.
 - Press and hold **fn+shift** to type with the key in uppercase.

Releasing **fn** returns a keypad key to its set function. For example, a keypad key returns to its keypad function if the keypad is turned on or to its standard function if the keypad is turned off.

Using an External Keypad



The internal keypad cannot be turned on while an optional external keypad is connected to the notebook.

Most keys on most external keypads function differently when num lock mode is on than when num lock mode is off. For example:

- When num lock mode is on, most keypad keys type numbers.
- When num lock mode is off, most keypad keys function like the arrow, page up, or page down keys.

Turning Num Lock Mode On and Off As You Work


To turn num lock mode on or off on an external keypad as you work, press the **num lk** key on the external keypad, not on the notebook.

- When an external keypad is turned on and is in num lock mode, the num lock light on the notebook is on.
- When an external keypad is turned off or is turned on with num lock mode turned off, the num lock light on the notebook is off.

Power Sources

Selecting a Power Source

Use the following table to select a recommended power source for the way you plan to use the notebook.

| Task | Recommended Power Source |
|---|---|
| Work in most software applications | <ul style="list-style-type: none">■ Charged battery pack in the notebook■ External power supplied through one of the following devices:<ul style="list-style-type: none"><input type="checkbox"/> AC adapter<input type="checkbox"/> Optional Expansion Base<input type="checkbox"/> Optional Auto/Air/AC Adapter<input type="checkbox"/> Optional Automobile Power Adapter/Charger |
| Charge or calibrate a battery pack in the notebook | <p>External power supplied through one of the following devices:</p> <ul style="list-style-type: none">■ AC adapter■ Optional Expansion Base■ Optional Automobile Power Adapter/Charger■ Optional Auto/Air/AC Adapter <p> To prevent damage to the notebook and aircraft systems, do NOT charge the battery pack while you are using an Auto/Air/AC Adapter on an aircraft.</p> |
| Install or modify system software or write to an optical disc | <p>External power supplied through one of the following devices:</p> <ul style="list-style-type: none">■ AC adapter■ Optional Expansion Base |

Switching Between Battery and External Power

The notebook runs on external power whenever external power is available to the notebook. This conserves the charge in an inserted battery pack. External power can be supplied through an AC adapter or an optional Expansion Base, Auto/Air/AC Adapter, or Automobile Power Adapter/Charger.

Because the notebook switches between battery power and external power according to the availability of external power:

- If the notebook is running on battery power and you connect the notebook to external power, the notebook switches to external power.
- If the notebook is running on external power (and contains a charged battery pack) and you disconnect the notebook from external power, the notebook switches to battery power.

When the notebook is in Windows, a Power Meter icon is displayed by default in the taskbar. The Power Meter icon changes shape whenever the power source changes between battery power and external power.

If the Power Meter icon is not displayed in your taskbar when the notebook is in Windows:

1. Select **Start > Control Panel > Performance and Maintenance > Power Options**.
2. Select the **Advanced** tab.
3. Select the **Always show icon on the taskbar** check box.
4. Select **OK**.

Power Control and Light Locations

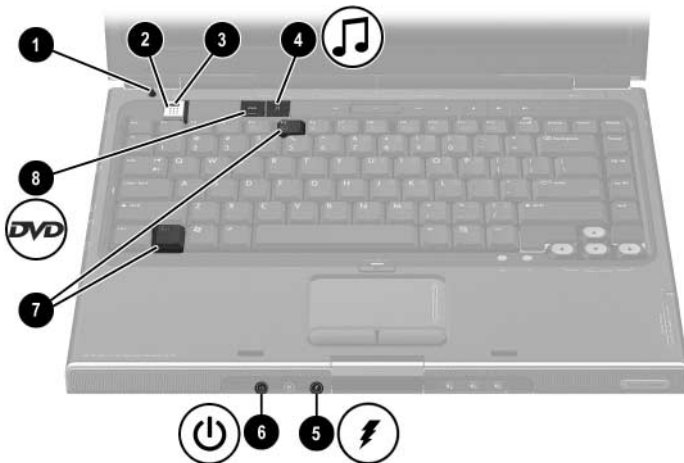
This illustration is provided as a quick reference to the locations of the power controls and lights on the notebook.

The function of each of these items is summarized in [Chapter 1, “Hardware.”](#) Instructions for using these items are provided in this chapter.

- | | |
|------------------|-----------------------|
| ❶ Display switch | ❺ Battery light |
| ❷ Power button | ❻ Power/standby light |
| ❸ Power light | ❼ fn+f5 hotkey |
| ❹ Music button | ❽ DVD button |



The power button light and the power/standby light display identical information. The power button light is visible only when the notebook is open. The power/standby light is visible when the notebook is closed.



Standby, Hibernation and Shutdown Overviews

Standby

Standby conserves power and protects your privacy by reducing power to system components that are not in use. When Standby is initiated, your work is saved in random access memory (RAM), the screen is cleared, and the power/standby and power button lights blink. Saving your work before initiating Standby is not usually necessary but is a recommended precaution. When you resume from Standby, your work returns instantly to the screen.

Initiating Standby

Standby cannot be initiated while the notebook is in QuickPlay.

When the notebook is in Windows, Standby can be initiated by you or by the system.

Initiating Standby Manually

At Windows default settings, closing the notebook initiates Standby. When you close the notebook, the display presses the display switch. The display switch is set by default to initiate Standby. For information about changing the function of the display switch in Windows, see [“Setting Other Power Preferences”](#) later in this chapter.

In QuickPlay, closing the notebook turns off the display. The function of the display switch in QuickPlay cannot be changed.

When the notebook is in Windows at default settings, you can also initiate Standby by pressing the **fn+f5** hotkey or from the Start button. For more information about **fn+f5** and other hotkeys, see the [“Hotkeys”](#) section in [Chapter 3, “Keyboard.”](#)

To initiate Standby from the Start button in

- Windows XP Home, select **Start > Turn Off Computer > Stand By**.
- Windows XP Professional, select **Start > Turn Off Computer > Stand By**. (If Stand By is not displayed, press the down arrow, and then select **Stand By** from the drop-down list.)

Managing System-Initiated Standby

When the notebook is in Windows at default settings, the system initiates Standby after periods of notebook inactivity:

- When the notebook is running on battery power, the system initiates Standby after 10 minutes of notebook inactivity.
- If the notebook is running on external power, the system initiates Standby after 25 minutes of notebook inactivity.

For information about changing these default settings, see the [“Using Power Schemes”](#) section later in this chapter.

When the notebook is in QuickPlay, the system does not initiate Standby. Instead, at default settings, after 5 minutes of inactivity the system turns off the notebook. For example, after playing the last track or chapter of a CD or DVD, the notebook remains on in QuickPlay for 5 minutes and then is turned off. This auto turn-off feature can be disabled. For instructions, see the [“Enabling and Disabling Auto Turn Off”](#) section in [Chapter 2, “QuickPlay.”](#)

Resuming from Standby

To resume from Standby into Windows:

- Briefly press the power button
 - Use the TouchPad
 - Press any key on the keyboard
- or –
- Press the music button, DVD button, or a TouchPad button.

Hibernation



CAUTION: If the configuration of the notebook system is changed during Hibernation, it might not be possible to resume from Hibernation. When the notebook is in Hibernation:

- Do not add or remove a memory module.
 - Do not add or remove a hard drive.
 - Do not connect or disconnect an external device.
 - Do not insert or remove a CD, DVD, PC Card, or digital memory card.
-

Hibernation is a Windows-based feature that saves your work to a hibernation file on the hard drive and then shuts down the notebook.

When Hibernation is complete, the power/standby and power button lights are turned off.

When you restore from Hibernation your work is returned to the screen. Restoring from Hibernation takes a little longer than resuming from Standby but is much faster than returning to your place manually after restarting the notebook in Windows.

Initiating Hibernation

When the notebook is in Windows at default settings, Hibernation can be initiated by you or by the system. When the notebook is in QuickPlay, Hibernation cannot be initiated

Initiating Hibernation Manually

To initiate Hibernation manually while the notebook is in

- Windows XP Home, select **Start > Turn Off Computer**. Then hold down **shift** as you select the **Stand By** button.
- Windows XP Professional, select **Start > Turn Off Computer > Hibernate**. (If Hibernation is not displayed, press the down arrow, and then select **Hibernate** from the drop-down list.)

Managing System-Initiated Hibernation

When the notebook is in Windows and running on battery power, Hibernation can be initiated by the system. For example, at default settings the system initiates Hibernation

- Whenever the notebook reaches a critical low-battery condition.
- After 30 minutes of notebook inactivity.

For information about changing these default settings, see the [“Using Power Schemes”](#) section later in this chapter.

When the notebook is in QuickPlay, Hibernation cannot be initiated by the system. Instead:

- Whenever the notebook reaches a critical low-battery condition, the system turns off the notebook.
- At default settings, after 5 minutes of notebook inactivity, the system turns off the notebook. For example, after playing the last track or chapter of a CD or DVD, the notebook remains on in QuickPlay for 5 minutes and then is turned off. This auto turn-off feature can be disabled. For instructions, see the [“Enabling and Disabling Auto Turn Off”](#) section in [Chapter 2, “QuickPlay.”](#)

For more information about low-battery conditions, see the [“Managing Low-Battery Conditions”](#) section later in this chapter.

Restoring from Hibernation

To restore from Hibernation into Windows, press the power button.

If you press the music button or the DVD button while the notebook is in Hibernation, the notebook is turned on in QuickPlay but the hibernation file is retained. To restore from Hibernation into Windows after completing your QuickPlay session:

1. Press the power button to close QuickPlay.
2. Press the power button again to restore from Hibernation into Windows.

Determining Whether the Notebook Is Off or in Hibernation

To determine whether the notebook is turned off or in Hibernation, press the power button.

- If the notebook is in Hibernation, the notebook restores from Hibernation and your work is returned to the screen.
- If the notebook is off, Windows loads.

Enabling or Disabling Hibernation

Hibernation is enabled by default but can be disabled. To prevent loss of work when the notebook is in Windows and reaches a critical low-battery condition, disable Hibernation only during a battery pack calibration.

- » To verify that Hibernation is enabled, select **Start > Control Panel > Performance and Maintenance > Power Options** icon > **Hibernate** tab. If Hibernation is enabled, the **Enable Hibernation** check box is selected.

Leaving Your Work

*If you are working in Windows and plan to resume shortly—*Initiate Standby for shorter times and Hibernation for longer times or for power conservation. The amount of time a battery pack can support Standby or Hibernation or hold a charge varies by notebook configuration and the condition of the battery pack. Standby requires more power than Hibernation.

Neither Standby nor Hibernation can be initiated while the notebook is in QuickPlay.

*If you plan to resume within 2 weeks—*Shut down the notebook from Windows or turn off the notebook from QuickPlay. If possible, connect the notebook to external power to keep an inserted battery pack fully charged.

*If the notebook will be unused and disconnected from external power for more than 2 weeks—*Shut down the notebook from Windows or turn off the notebook from QuickPlay. To extend the life of an inserted battery pack, remove the battery pack and store it in a cool, dry location.

*If an external power supply is uncertain—*If the notebook is in Windows, initiate Hibernation or shut down the notebook. If the notebook is in QuickPlay, turn off the notebook. (A power supply might become uncertain because of such conditions as an electrical storm or a nearly discharged battery pack.)

Interference with Drive Media

To prevent the loss of playback or playback quality, do not initiate Standby or Hibernation while playing a drive medium.

If Standby or Hibernation is initiated while a drive medium such as a CD or DVD is in use:

- You might see the warning message “Putting the computer into Hibernation or Standby might stop the playback. Do you want to continue?” If this message is displayed, select **No**. (Playback might resume or you might need to restart the drive medium.)

– or –

- The playback might stop and the screen might clear. To resume your work, press the power button, and then restart the medium.


Standby, Hibernation and Shutdown Procedures

This section explains the default Standby, Hibernation, and shutdown procedures and includes information about turning the display on or off. For information about changing the Windows function of some of the power features on your notebook, see the [“Power Preferences”](#) section later in this chapter.

The controls and lights discussed in this section are illustrated in in the [“Power Control and Light Locations”](#) section earlier in this chapter.

For more information about QuickPlay, see [Chapter 2](#), [“QuickPlay.”](#)

Turning the Notebook On or Off

| Task | Procedure | Results |
|--|---|---|
| Turn the notebook on in Windows when the notebook is off or in Hibernation. | Press the power button.  Pressing the power button turns on the notebook from Standby, Hibernation, or shutdown. | <ul style="list-style-type: none"> ■ Power/standby light and power button light are turned on. ■ The Windows operating system loads. |
| Turn the notebook on in QuickPlay music mode when the notebook is off or in Hibernation. | Press the music button. | <ul style="list-style-type: none"> ■ Power/standby light and power button light are turned on. ■ Notebook starts in QuickPlay music mode. |
| Turn the notebook on in QuickPlay DVD mode when the notebook is off or in Hibernation. | Press the DVD button. | <ul style="list-style-type: none"> ■ Power/standby light and power button light are turned on. ■ Notebook starts in QuickPlay DVD mode. |
| Shut down the notebook from Windows. | <ul style="list-style-type: none"> ■ In Windows XP Home, select Start > Turn Off Computer > Turn Off.^{*†} ■ In Windows XP Professional, select Start > Turn Off Computer > Shut down > OK.^{*†} | <ul style="list-style-type: none"> ■ Power/standby light and power button light are turned off. ■ The Windows operating system shuts down. ■ Notebook is turned off. |

(Continued)



| Task | Procedure | Results |
|---|--|--|
| Turn off the notebook from QuickPlay. | Briefly press the power button. | <ul style="list-style-type: none">■ Power/standby light and power button light are turned off.■ QuickPlay closes.■ Notebook is turned off. |
| Allow the system to turn off the notebook from QuickPlay. | No action is required. When the notebook is in QuickPlay at default settings the system turns off the notebook after 5 minutes of inactivity. [‡] | <ul style="list-style-type: none">■ Power/standby light and power button light are turned off.■ QuickPlay closes.■ Notebook is turned off. |

*If the system is unresponsive and you are unable to shut down the notebook with this procedure, see the [“Using Emergency Turn Off Procedures”](#) section later in this chapter.

[†]On your notebook, the Turn Off Computer button might be called the *Shut Down* button, depending on your network connections.

[‡]The QuickPlay auto turn-off feature can be disabled. For instructions, see the [“Enabling and Disabling Auto Turn Off”](#) section in [Chapter 2, “QuickPlay.”](#)

Initiating or Resuming from Standby



| Task | Procedure | Result |
|---|--|---|
| Initiate Standby from Windows.  Standby cannot be initiated while the notebook is in QuickPlay. | With the notebook on, use any of the following procedures: ■ Press the fn+f5 hotkey. ■ Close the notebook.  When the notebook is closed, the display presses the display switch, which then turns off the display. ■ In Windows XP Home , select Start > Turn Off Computer > Stand By . [*] ■ In Windows XP Professional , select Start > Turn Off Computer > Stand by > OK . [*] (If Stand by is not displayed, press the down arrow, and then select Stand by from the drop-down list.) | ■ Power/standby light and power button light blink. ■ Screen is cleared. |
| Allow the system to initiate Standby from Windows. | No action is required. The system initiates Standby ■ After 10 minutes of inactivity while running on battery power. ■ After 25 minutes of inactivity while running on external power. | ■ Power/standby light and power button light blink. ■ Screen is cleared. |
| Resume from Standby into Windows. | Use any of the following procedures: ■ Briefly press the power button. ■ Use the TouchPad. ■ Press any key on the keyboard. ■ Press the music button, DVD button, or a TouchPad button. [†] | ■ Power/standby light and power button light are turned on. ■ Your work is returned to the screen. |

^{*}On your notebook, the Turn Off Computer button might be called the *Shut Down* button, depending on your network connections.

[†]Depending on your notebook configuration, you might also be able to resume from Standby by moving or activating a control on an optional mouse or by opening the display if the notebook was closed while in Standby.

Initiating or Restoring from Hibernation

Hibernation cannot be initiated unless it is enabled. Hibernation is enabled by default. To verify that Hibernation remains enabled, select **Start > Control Panel > Performance and Maintenance > Power Options > Hibernate** tab. If Hibernation is enabled, the Enable Hibernation check box is selected.

| Task | Procedure | Result |
|---|---|--|
| Initiate Hibernation from Windows. | In Windows XP Home , select Start > Turn Off Computer . [*] Then hold down shift as you select the Stand By button. | ■ Power/standby light and power button light are turned off. |
|  Hibernation cannot be initiated from QuickPlay. | In Windows XP Professional , select Start > Turn Off Computer > Hibernate . [*] (If Hibernate is not displayed, press the down arrow, and then select Hibernate from the drop-down list.) | ■ Screen is cleared. |
| Allow the system to initiate Hibernation from Windows. | No action is required. If the notebook is running on battery power and Hibernation is enabled, the system initiates Hibernation | ■ Power/standby light and power button light are turned off. |
|  Hibernation cannot be initiated from QuickPlay. | <ul style="list-style-type: none"> ■ After 30 minutes of notebook inactivity. ■ Whenever the battery pack reaches a critical low-battery condition. | ■ Screen is cleared. |

(Continued)

| Task | Procedure | Results |
|---------------------------|--|--|
| Restore from Hibernation. | Briefly press the power button. [†] | <ul style="list-style-type: none">■ Power/standby light and power button light are turned on.■ Your work is returned to the screen. |

*On your notebook, the Turn Off Computer button might be called the *Shut Down* button, depending on your network connections.

[†]If the system initiated Hibernation because of a critical low-battery condition, connect external power or insert a charged battery pack before you press the power button. (The system might not respond if the drained battery pack is the only power source.)

Using Emergency Turn Off Procedures

If the notebook has stopped responding, try first to turn off the notebook by using the following standard procedures:

- In Windows XP Home, select **Start > Turn Off Computer > Turn Off**.
- In Windows XP Professional, select **Start > Turn Off Computer > Shut down > OK**. (On your notebook, the Turn Off Computer button might be called the *Shut Down* button, depending on your network connections.)
- In QuickPlay, briefly press the power button.

If the notebook does not respond, try the following emergency turn off procedures in the sequence provided:

- If the notebook is in Windows, press **ctrl+alt+del**. Then
 - ❑ In Windows XP Home, select **Shut Down > Turn Off**.
 - ❑ In Windows XP Professional, select **Shut down** from the drop-down list, and then select **OK**.
- If the notebook is in either Windows or QuickPlay:
 - ❑ Press and hold down the power button for at least 4 seconds.
 - ❑ Unplug the notebook from external power and remove the battery pack. For battery pack removal instructions see the [“Replacing a Battery Pack”](#) section later in this chapter.

Switching Between Windows and QuickPlay

Because QuickPlay is not a part of your Windows operating system:

- To switch the notebook from Windows to QuickPlay, you must initiate Hibernation or shut down Windows, and then open QuickPlay.

If you initiate Hibernation and then open QuickPlay, the hibernation file is retained and can be restored after you complete your QuickPlay session and turn off QuickPlay.

- To switch the notebook from QuickPlay to Windows, you must turn off QuickPlay and then start Windows.

Windows and QuickPlay procedures for turning the notebook on and off and for controlling Standby and Hibernation are provided in the [“Standby, Hibernation and Shutdown Procedures”](#) section earlier in this chapter.

Power Preferences

Using Power Schemes

You can set and use power schemes only when the notebook is in Windows.

A power scheme controls the amount of power the notebook uses while running on external power or on a battery pack, and also sets the notebook to initiate Standby or Hibernation after a period of inactivity you specify.

- » To select a preset power scheme or create a custom power scheme, select **Start > Control Panel > Performance and Maintenance > Power Options**, and then follow the instructions on the screen.

Setting a Standby Password

You can set and use a Standby password only when the notebook is in Windows. Standby is unavailable in QuickPlay.

To set the notebook to prompt for a password before resuming from Standby:

1. Select **Start > Control Panel > Performance and Maintenance > Power Options**.
2. Select the **Advanced** tab.
3. Select the check box for **Prompt for password when computer resumes from standby**.
4. Select **OK**.

For information about other passwords and security features, see [Chapter 7, “Security.”](#)

Setting Other Power Preferences

You can change the Windows function of the power button, the **fn+f5** hotkey, and the display switch.



In QuickPlay the **fn+f5** hotkey is inactive, and the power button and display switch function only at their default settings.

At the default settings for the **fn+f5** hotkey, power button, and display switch, when the notebook is on in Windows:

- Briefly pressing the power button initiates Hibernation.
- Pressing the **fn+f5** hotkey, called the *sleep button* in a Windows operating system, initiates Standby.
- Closing the notebook presses the display switch, which turns off the display.

To change the Windows function of the power button, the **fn+f5** hotkey, or the display switch:

1. Select **Start > Control Panel > Performance and Maintenance > Power Options > Advanced** tab.
 - ☐ To change the function of the power button, select a function from the drop-down list for **When I press the power button on my computer**.
 - ☐ To change the function of the **fn+f5** hotkey, select a function from the drop-down list for **When I press the sleep button on my computer**.
 - ☐ To change the function of the display switch when you close the display, select a function from the drop-down list for **When I close the lid of my portable computer**. (The function of the display switch when you *open* the display is unaffected by these settings. When you open the display while the notebook is in Standby, the display switch turns on the notebook.)
2. Select **OK**.

The Hibernate function is available in the power button, sleep button, and display switch drop-down lists only if Hibernation is enabled. If the Hibernate function is not available on these lists, select **Start > Control Panel > Performance and Maintenance > Power Options > Hibernate** tab. Select the **Enable Hibernation** check box, and then select **OK**.

Battery Pack

Charging a Battery Pack

To prolong battery life and optimize the accuracy of battery charge displays:



CAUTION: To prevent damage to the notebook and aircraft systems, do NOT charge the battery pack while you are using an Auto/Air/AC Adapter on an aircraft.

- If you are charging a *new* battery pack:
 - ❑ Charge the battery pack while the notebook is connected to external power through the AC adapter.
 - ❑ When you charge the battery pack, charge it fully.
- If you are charging an *in-use* battery pack:
 - ❑ Allow the battery pack to discharge to about 10 percent of a full charge through normal use before charging it.
 - ❑ When you charge the battery pack, charge it fully.

A battery pack inserted in the notebook charges whenever the notebook is connected to external power through an AC adapter or through an optional Expansion Base, Automobile Power Adapter/Charger, or Auto/Air/AC Adapter.

A battery pack inserted in the notebook charges whether the notebook is off or in use, but the battery pack charges faster while the notebook is off. Charging might be delayed if a battery pack is new, has been unused for 2 weeks or more, or is much warmer or cooler than room temperature.

The battery light displays charge status:

- On: the battery pack is charging.
- Blinking: the battery pack has reached a low-battery condition and is not charging.
- Off: the battery pack is fully charged or not installed.

For information about determining the amount of charge in a battery pack, see the [“Monitoring the Charge in a Battery Pack”](#) section next in this chapter.

Monitoring the Charge in a Battery Pack

Obtaining Accurate Charge Reports

To increase the accuracy of battery charge reports:

- Allow a battery pack to discharge to about 10 percent of a full charge through normal use before charging it.
- When you charge a battery pack, charge it fully. The charge in even a new battery pack might be reported inaccurately until the battery pack has been fully charged at least once.
- If a battery pack has been unused for one month or more, calibrate the battery pack instead of simply charging it.

For information about battery calibration, see the [“Calibrating a Battery Pack”](#) section later in this chapter.

Displaying Charge Reports

To display battery charge information on the screen in Windows, use the Windows Power Meter feature described later in this section.

To display battery charge information on the screen in QuickPlay, press **fn+end**. For more information about using **fn+end** and other hotkeys, see the “Hotkeys” section in [Chapter 3, “Keyboard.”](#)

To access the Windows Power Meter display in Windows:

- Select **Start > Control Panel > Performance and Maintenance > Power Options > Power Meter** tab.

– or –

- Select the **Power Meter** icon, which is displayed by default in the taskbar. To display the Power Meter icon if the default setting has been changed, select **Start > Control Panel > Performance and Maintenance > Power Options**. Select the **Advanced** tab, select the **Always show** icon on the taskbar check box, and then select **OK**.

Power Meter displays battery status in both percent and time:

- The percent indicates the amount of charge remaining in the battery pack.
- The time indicates the approximate running time remaining on the battery pack *if the battery pack continues to provide power at the current level*. For example, the time remaining will decrease if you start playing a DVD and will increase if you stop playing a DVD.

Managing Low-Battery Conditions

This section describes default low-battery condition alerts and system responses. The default battery light responses cannot be changed. To change other responses, select **Start > Control Panel > Performance and Maintenance > Power Options**, and then follow the instructions on the screen.

Identifying Low-Battery Conditions

When a battery pack that is the only power source for the notebook reaches a *low-battery condition*, a text warning message is displayed, and the battery light blinks.

If a low-battery condition is not resolved and the amount of charge remaining in the battery pack continues to drop, the notebook eventually enters a *critical low-battery condition*.

- When the notebook is in Windows or Standby and enters a critical low-battery condition:
 - ❑ If Hibernation is enabled, the system initiates Hibernation. Some unsaved work might be lost.
 - ❑ If Hibernation is disabled, the notebook remains briefly in Standby, and then shuts down. All unsaved work is lost.

Hibernation is enabled by default. To verify that Hibernation remains enabled, select **Start > Control Panel > Performance and Maintenance > Power Options** icon > **Hibernate** tab. If Hibernation is enabled, the **Enable Hibernation** check box is selected.

- When the notebook is in QuickPlay and enters a critical low-battery condition, the notebook is turned off.

Resolving Low-Battery Conditions



CAUTION: To prevent problems when restoring from Hibernation: If the notebook has reached a critical low-battery condition and has begun to initiate Hibernation, do not restore power until Hibernation is complete. When Hibernation is complete, the power/standby light and power button light are turned off.

To resolve a low-battery condition:

- If external power is available, connect the notebook to the external power source.
- If a charged battery pack is available and
 - ❑ The notebook is in Windows, shut down the notebook or initiate Hibernation, insert the charged battery pack, and then turn on the notebook.
 - ❑ The notebook is in QuickPlay, turn off the notebook, insert the charged battery pack, and then turn on the notebook.
- If no power source is available, save your work. Then:
 - ❑ If the notebook is in Windows, initiate Hibernation or shut down the notebook.
 - ❑ If the notebook is in QuickPlay, turn off the notebook.

Calibrating a Battery Pack

When to Calibrate

Even if a battery pack is heavily used, calibration should be necessary only once a month. You do not have to calibrate a new battery pack before first use.

Calibration does not usually increase battery run time, but it can increase the accuracy of battery charge displays, especially under the following conditions:

- When the battery pack has been unused for one month or more.
- When the notebook has been running primarily on external power (and rarely on battery power) for more than one month.
- When battery charge displays report large changes in the percent of power remaining within 2 minutes. For example, if the Windows Power Meter displays 20 percent of a full charge remaining and then less than 2 minutes later displays only 5 percent of a full charge remaining, the rapid drop in charge remaining indicates that the battery pack needs calibration.

For more information about battery charge displays, see the [“Monitoring the Charge in a Battery Pack”](#) section earlier in this chapter.

How to Calibrate

To calibrate a battery pack, you must fully charge, fully discharge, and then fully recharge the battery pack while the notebook is in Windows.

Charging the Battery Pack

Charge the battery pack while the notebook is on. To charge the battery pack:



CAUTION: To prevent damage to the notebook and aircraft systems, do NOT charge the battery pack while you are using an Auto/Air/AC Adapter on an aircraft.

1. Insert the battery pack into the notebook.
2. Connect the notebook to external power through the AC adapter or an optional Automobile Power Adapter/Charger or Auto/Air/AC Adapter. (The notebook battery light is on as the battery pack charges.)
3. Leave the notebook connected to external power until the battery pack is fully charged. (The notebook battery light is turned off.)

Discharging the Battery Pack



CAUTION: To prevent loss of work, save your work before beginning an unattended discharge procedure.

The notebook must remain on throughout the discharge process. The battery pack can discharge whether or not you are using the notebook, but the battery pack will discharge faster if the notebook is in use.

If you use the notebook occasionally during the discharge process described below and have set energy-saving timeouts, expect the following performance from your system during the discharge:

- Any unsaved work from your current session will be lost when the battery pack is fully discharged and the notebook is shut down.
- The system will not turn off a connected optional monitor.

- The system will not decrease hard drive speed while the notebook is idle.
- System-initiated Standby will not occur.

To fully discharge the battery pack:

1. Disable Hibernation. To disable Hibernation, select **Start > Control Panel > Performance and Maintenance > Power Options > Hibernate** tab. Then clear the **Enable Hibernation** check box.
2. Select **Start > Control Panel > Performance and Maintenance > Power Options > Power Schemes** tab.
3. Record all settings in the Plugged In column and all settings in the Running On Batteries column, so you can reset them after calibration.
4. Use the drop-down lists to set each item in both columns to **Never**.
5. Select **OK**.
6. Disconnect the notebook from the external power source, but do *not* turn off the notebook.
7. Run the notebook on battery power until the battery pack is fully discharged. When the battery pack is fully discharged, the notebook is shut down.

Recharging the Battery Pack

1. Connect the notebook to external power and maintain the connection until the battery pack is fully recharged and the battery light is turned off.

You can use the notebook while the battery pack is recharging, but the battery pack will charge faster if the notebook is turned off.

2. If the notebook is turned off, turn on the notebook after the battery pack is fully charged and the battery light is off.

3. Display the settings on the Power Schemes table. To access the Power Schemes tab, select **Start > Control Panel > Performance and Maintenance > Power Options > Power Schemes** tab.
4. Reenter the settings you recorded earlier for the items in the Plugged In column and the Running on Batteries column.
5. Select **OK**.



CAUTION: To prevent a complete battery drain and a potential loss of work when the notebook reaches a critical low-battery condition, reenabling Hibernation after calibrating the battery pack. To reenabling Hibernation: Select **Start > Control Panel > Performance and Maintenance > Power Options > Hibernate** tab. Select the **Enable Hibernation** check box, and then select **OK**.

Conserving Battery Pack Power

Using the following battery conservation settings and procedures extends the time that a battery pack can run the notebook from a single charge.

Conserving Power as You Work

To conserve power as you work:

- Prevent devices you are not using from drawing power from the notebook. For example:
 - ❑ Turn off wireless and local area network (LAN) connections and close modem applications.
 - ❑ Disconnect any external devices from the notebook that are not plugged into an external power source.
 - ❑ Stop or remove an inserted PC Card.
 - ❑ Disable or remove an inserted digital memory card.
 - ❑ Turn off a device connected to the S-Video-out jack.

- Use optional, externally powered speakers instead of the internal speakers whenever possible. When you must use the internal speakers, minimize system volume. Volume can be adjusted with the volume buttons.
- Minimize screen brightness. To decrease screen brightness, press the **fn+f7** hotkey. To increase screen brightness, press the **fn+f8** hotkey.
- If you leave your work
 - ❑ While the notebook is in Windows, initiate Standby or Hibernation, or shut down the notebook.
 - ❑ While the notebook is in QuickPlay, turn off the notebook.


Selecting Power Conservation Settings

You can set and use the following power conservation settings only while the notebook is in Windows.

To set the notebook to use less power in Windows:

- Select a short wait for the screen saver and select a screen saver with minimal graphics and motion. To select a screen saver and a screen saver wait time, select **Start > Control Panel > Appearance and Themes > Display > Screen Saver** tab, and then follow the instructions on the screen.
- Select or create a power scheme that minimizes power use. For more information about using power schemes, see the [“Using Power Schemes”](#) section earlier in this chapter.

Replacing a Battery Pack

 **CAUTION:** To prevent loss of work when removing a battery pack that is the only power source:

- If the notebook is in Windows, shut down the notebook or initiate Hibernation. (If you initiate Hibernation, do not begin the following procedure until the power/standby light and the power button light are turned off, indicating that Hibernation is complete.)
- If the notebook is in QuickPlay, turn off the notebook.

Removing a Battery Pack

Although battery packs vary by model, the removal procedure is the same for all models.

To remove a battery pack:

1. Turn the notebook upside down.
2. Slide the battery release latch **1** to release the battery pack.
3. Pull the battery pack out of the battery bay **2**.

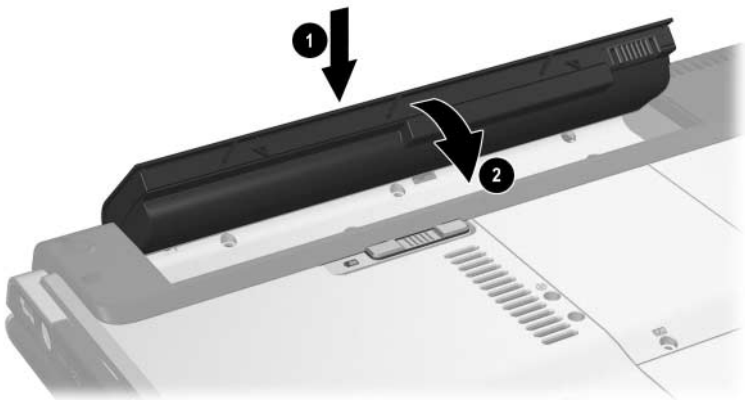


Inserting a Battery Pack

Although battery packs vary by model, the insertion procedure is the same for all models.

To insert a battery pack:

1. Turn the notebook upside down.
2. Lower the battery pack into the battery bay ❶.
3. Pivot the battery pack downward until it is seated ❷.



Storing a Battery Pack



CAUTION: To prevent damage to a battery pack, do not expose it to high temperatures for extended periods of time.

If the notebook will be unused and disconnected from external power for more than 2 weeks, remove and store the battery pack.

High temperatures, which might be present in parked cars or some workplaces, accelerate the self-discharge rate of a stored battery pack. To prolong the charge of a stored battery pack, place it in a location that is cool and dry.

Calibrate a battery pack that has been stored for one month or more before using it.

Disposing of a Used Battery Pack



WARNING: To reduce the risk of fire or burns, do not disassemble, crush, or puncture a battery pack; short the external contacts on a battery pack; or dispose of a battery pack in fire or water. Do not expose a battery pack to high temperatures above 60°C (140°F). Replace only with the HP battery pack approved for this computer.



When a battery pack has reached the end of its useful life, do not dispose of the battery pack in general household waste. Follow the local laws and regulations in your area for computer battery pack disposal.

In Europe, dispose of or recycle the battery packs by using the public collection system or by returning them to HP, your authorized service partner, or their agents.

Volume Controls

In both Windows and QuickPlay, you can adjust volume with the volume buttons on the notebook. Instructions are provided later in this section. The volume mute button on the notebook overrides all software volume settings.

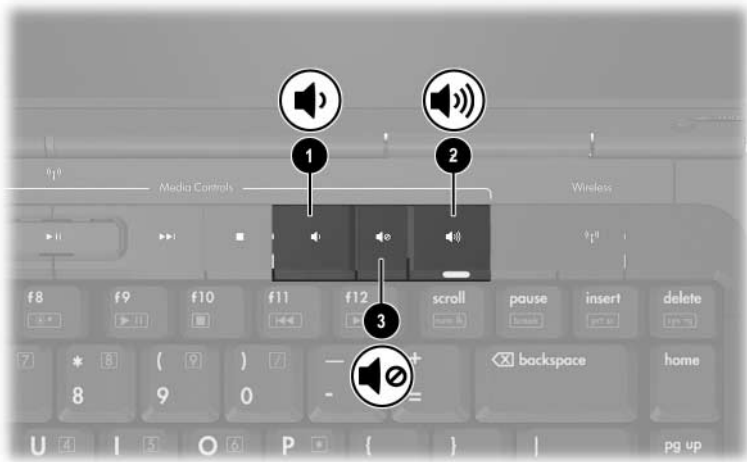
In Windows you can also adjust volume by using the volume control software available in the Windows operating system and in some Windows multimedia applications. Instructions are provided later in this section.

In QuickPlay you can display volume information by pressing the **fn+end** hotkey. To close the display, press **esc**. For more information about using **fn+end** and other hotkeys, refer to the “Hotkeys” section in [Chapter 3, “Keyboard.”](#)

In QuickPlay music mode, volume information is also displayed on the music console. For more information about the music console see the “Music Mode” section in [Chapter 2, “QuickPlay.”](#)

- To adjust volume using the notebook volume buttons:
 - ❑ To decrease volume, press the volume down button ❶.
 - ❑ To increase volume, press the volume up button ❷.
 - ❑ To mute volume, press the volume mute button ❸.
 - ❑ To restore volume, press the volume down, volume up, or volume mute button.

When volume is muted, the mute light (on the volume mute button) is turned on. When volume is restored, the mute light is turned off.



- To access the Windows volume controls, select **Start > Control Panel > Sounds, Speech, and Audio Devices > Sounds and Audio Devices**, and then select the **Volume** tab.
 - ❑ To access additional sound quality settings, such as balance, select the **Advanced** button in the Device volume pane.
 - ❑ To display a volume icon on your taskbar, select the check box for **Place volume icon in the taskbar**, and then select **OK**.

Internal Speakers

The internal speakers, identified in the following illustration, play sound in stereo from Windows or QuickPlay, games, drive media, the Internet, and other sources.

If an external device, such as headphones, is connected to an audio-out (headphone) jack, the internal speakers are disabled.



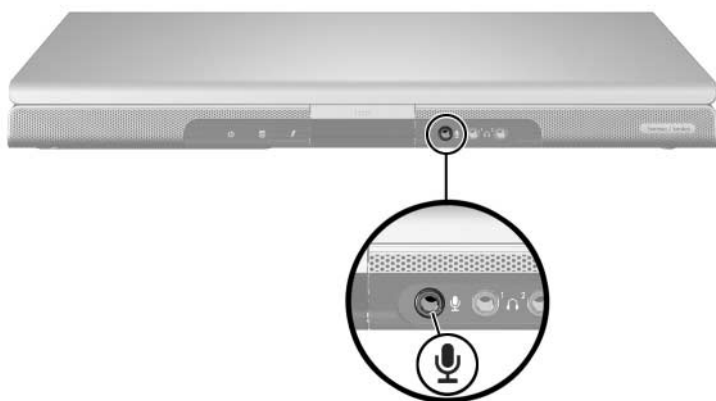
External Audio Devices

Using the Audio-In (Microphone) Jack

A device connected to the microphone jack can be used only when the notebook is in Windows.

The audio-in jack, identified in the following illustration, connects an optional monaural (single sound channel) microphone.

It is recommended that you use an electret condenser microphone with a 3.5-mm plug. If you connect a dynamic microphone, the recommended sensitivity might not be achieved.



Using the Audio-Out (Headphone) Jacks



WARNING: To reduce the risk of personal injury, adjust the volume before putting on headphones.



CAUTION: To prevent possible damage to an external device, do not plug a monaural (single sound channel) plug into an audio-out jack.

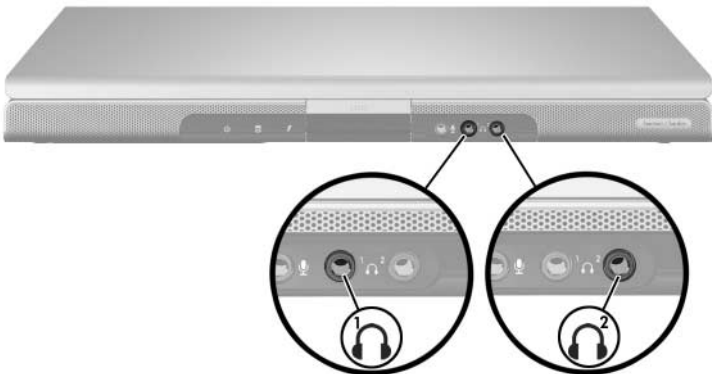
Connecting the Audio-Out Jacks

An audio-out jack, sometimes called a *headphone* jack, connects optional headphones or externally-powered stereo speakers. An audio-out jack is also used to connect the audio functions of an audio/video device such as a television or VCR.

An analog device connected to either of the 2 audio-out jacks, illustrated below, can be used when the notebook is in either Windows or QuickPlay. For information about connecting an S/PDIF device to an audio jack, see the “[Setting Audio Output Preferences](#)” section next in this chapter.

When any device is connected to an audio-out jack, the internal speakers are disabled.

When you connect a device to an audio-out jack, use only a 3.5-mm plug.



Setting Audio Output Preferences

In both Windows and QuickPlay, the notebook is set by default to transmit *analog* audio signals through the 2 audio-out (headphone) jacks.

The notebook can also transmit *S/PDIF* digital audio signals through the audio-out jacks. To transmit S/PDIF signals to an external device, the system must include an optional Expansion Base or an optional HP xc2000 Notebook All-in-One Media Cable. Refer to the manufacturer's documentation for more information about these devices.

To set the notebook to transmit S/PDIF audio signals while the notebook is in QuickPlay, you must set an S/PDIF preference on the Player Setup menu. An audio preference set on the Player Setup menu is retained after you close QuickPlay, but can be changed at any time.

To set an audio preference for QuickPlay, the notebook must be in QuickPlay:

- To open QuickPlay while the notebook is off, press the DVD button, illustrated below
- To switch the notebook from Windows to QuickPlay, shut down or hibernate Windows, and then press the DVD button to open QuickPlay.



To set an audio preference while the notebook is in QuickPlay:

1. Press **fn+esc** to display the Player Setup menu.
2. Use the arrow keys to select **Audio Output**, and then press **ok**. Then
 - ❑ To set the notebook to transmit S/PDIF audio signals, use the arrow keys to select **S/PDIF**, and then press **ok**.
 - ❑ To set the notebook to transmit analog audio signals, use the arrow keys to select **Analog**, and then press **ok**.
3. To close the display, press **esc**.

External Video Devices

Connecting an S-Video Device

An S-Video device can be used while the notebook is in Windows or in QuickPlay DVD mode only when TV-Out is enabled on the Player Setup menu. A device connected to the S-Video-out jack cannot be used while the notebook is in QuickPlay music mode. For more information and instructions, see the [“Setting TV-Out and TV System Preferences”](#) section in [Chapter 2, “QuickPlay.”](#)

Connecting the Audio

The S-Video-out jack supports video signals only.

If you are setting up a configuration that combines audio and video functions, such as playing a DVD movie on your notebook and displaying it on your television, you need a standard 3.5-mm audio cable, available from most computer or electronics retailers.

Plug the stereo end of the audio cable into an audio-out (headphone) jack on the notebook. Plug the other end of the cable into the audio-in jack on the external device.

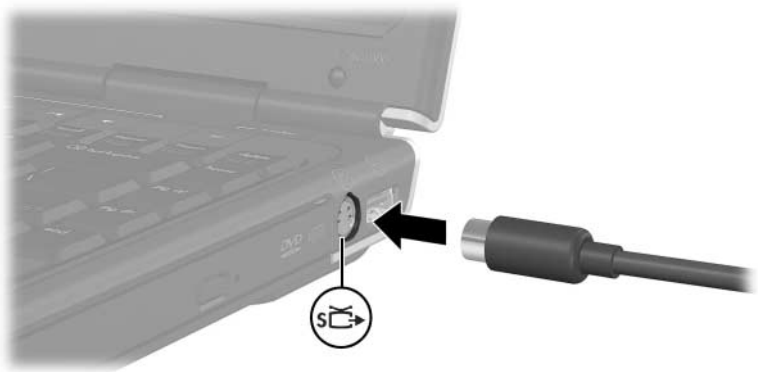
For more information about the notebook audio-out jacks and about the types of devices that can be connected to them, see the [“Using the Audio-Out \(Headphone\) Jacks”](#) section earlier in this chapter.

Connecting the Video

To transmit video signals through the S-Video-out jack when the notebook is in Windows or in QuickPlay DVD mode, you need a standard S-Video cable, available from most computer or electronics retailers.

To connect the S-Video cable:

1. Plug either end of the S-Video cable into the notebook S-Video-out jack, illustrated below.
2. Plug the other end of the cable into the S-Video-in jack on the external device.



Displaying a Video Image

To display a video image in either Windows or QuickPlay DVD mode, both the notebook and the video device must be turned on.

- In Windows you can switch the image between the notebook display and the video device display by repeatedly pressing the **fn+f4** hotkey. Pressing the **fn+f4** hotkey switches the image among the notebook display, any connected displays, and simultaneous display.
- In QuickPlay, an image transmitted to an external device through an S-Video or composite video connection is displayed only on the external device.

In both Windows and QuickPlay, the notebook can transmit composite video signals to an external device only when an optional HP expansion product, such as an Expansion Base or an optional HP Notebook All-in-One Media Cable xc2000 is in the system.

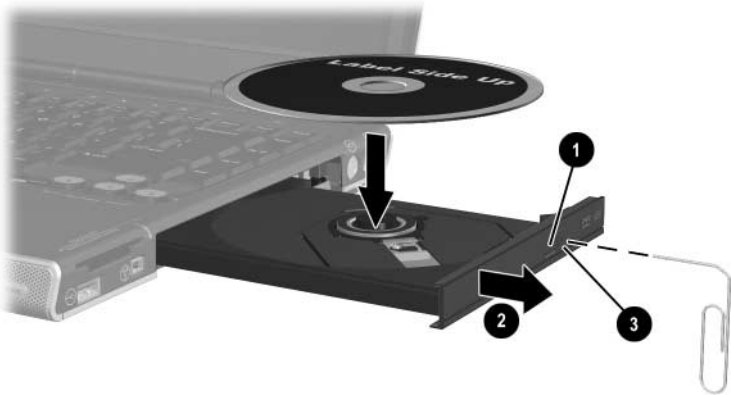
In QuickPlay, an S-Video or composite video device can be used only when the notebook is in QuickPlay DVD mode and only when TV-Out is enabled on the Player Setup menu. For more information and instructions, see the [“Setting TV-Out and TV System Preferences”](#) section in [Chapter 2, “QuickPlay.”](#)

CD and DVD Procedures

Inserting or Removing a Disc

Use the following procedures to insert or remove an optical disc such as a CD or a DVD. A disc that is playing must be stopped before it can be removed. To stop a disc, press the Stop button or the **fn+f10** hotkey.

- To insert a disc—Be sure the notebook is turned on. Then press the release button ❶ on the drive bezel to release the media tray. Pull the tray outward ❷, place the disc label-side up on the media tray, and then close the media tray.
- To remove a disc while the notebook is turned on—Press the release button on the drive bezel to release the media tray. Pull the tray outward, remove the disc, and then close the media tray.
- To remove a disc while the notebook is turned off:
 - a. Insert the end of a small object like a paper clip into the release access ❸ in the front bezel of the drive.
 - b. Press gently on the paper clip until the media tray is released.
 - c. Pull the tray outward, remove the disc, and then close the media tray.



Controlling Disc Activity

You can manage disc activities such as pause, play, stop, and rewind by using the following disc activity controls:

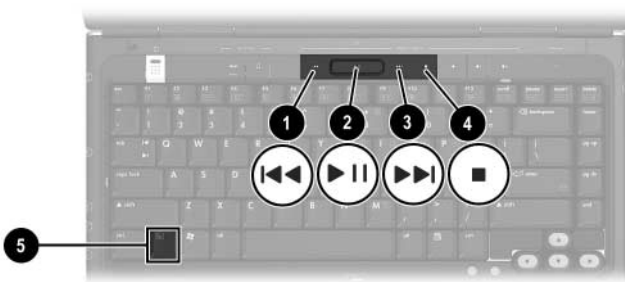
- **Media activity buttons**—The 4 media activity buttons on your notebook provide quick disc control in either Windows or QuickPlay. These buttons also control the activity of selections on the music mode Playlist. For more information about these buttons, see the [“Using the Media Activity Buttons”](#) section next in this chapter.
- **Windows multimedia software**—Some Windows multimedia applications provide disc activity controls on the screen. For more information about Windows multimedia software, see the [“Windows Multimedia Software”](#) section later in this chapter.
- **QuickPlay music console**—The QuickPlay music console displays Playlist activity status information on the screen. For information about using this console, see the [“Music Mode”](#) section in [Chapter 2, “QuickPlay.”](#)
- **Media activity hotkeys**—The media activity hotkeys, **fn+f9**, **fn+f10**, **fn+f11**, and **fn+f12**, can be used in both Windows and QuickPlay. These hotkeys also control the activity of selections on the music mode Playlist.

For more information about using these and other hotkeys, see the [“Hotkeys”](#) section in [Chapter 3, “Keyboard.”](#) For more information about the music mode Playlist, see the [“Music Mode”](#) section in [Chapter 2, “QuickPlay.”](#)

Using the Media Activity Buttons

The 4 media activity buttons control the play of a CD or DVD when the notebook is in either QuickPlay or Windows. When the notebook is in QuickPlay music mode, these buttons also control the play of selections on the Playlist.

- When the notebook is in Windows or QuickPlay:
 - ❑ To skip to the previous selection, press the previous/rewind button ❶.
 - ❑ To play or pause a selection, press the play/pause button ❷.
 - ❑ To skip to the next selection, press the next/fast forward button ❸.
 - ❑ To stop the current media activity, such as playing or rewinding, press the stop button ❹.
- When the notebook is in QuickPlay, the following additional procedures can be used:
 - ❑ To rewind a disc or return to the beginning of the current selection, press **fn** ❺+the previous/rewind button ❶.
 - ❑ To fast forward, press **fn** ❺+the next/fast forward button ❸.



When the notebook is in QuickPlay music mode, all disc activities except fast forward and rewind are indicated on the music console. For more information about the music console, including instructions for using the Playlist, see the [“Music Mode”](#) section in [Chapter 2, “QuickPlay.”](#)

Setting AutoPlay Preferences

AutoPlay preferences can be set and used only while the notebook is in Windows.

AutoPlay is a Windows operating system feature that determines how the notebook responds when you access files on a removable storage device such as a DVD-ROM drive, a DVD/CD-RW Combo Drive, or a DVD+RW/R and CD-RW Combo Drive.

AutoPlay default settings vary by notebook model and configuration. The first time you insert a CD or DVD into an optical drive and close the tray, the CD or DVD might begin playing or the AutoPlay pop-up window might be displayed. If the AutoPlay pop-up window is displayed, select your preferences as instructed on the screen.

The default AutoPlay settings can be changed. For example, you can set the notebook to display a slide show of the pictures on a CD containing digital photographs, begin playing the first track of a CD containing music, or display the names of the folders and files on a CD containing data files. You can also set the notebook to prompt you for a preference each time you insert a disc or to do nothing when you insert a disc.

At many AutoPlay settings, there might be a pause of several seconds while AutoPlay opens both the disc and the associated disc player application.

AutoPlay preferences are not available for diskette drives, but can be applied to most other removable storage devices. AutoPlay preferences can be set for a digital memory card such as a Secure Digital (SD) Memory Card, Memory Stick, Memory Stick Pro, xD-Picture Card, MultiMediaCard, or SmartMedia (SM) card.

To access AutoPlay settings:

1. Select **Start > My Computer**.
2. In the Devices with Removable Storage group, right-click an item such as a DVD-ROM drive.
3. Right-click **Properties**.
4. Select the **AutoPlay** tab.

Protecting Playback

To prevent the loss of playback or playback quality when the notebook is in either Windows or QuickPlay:

- Save your work and close all open applications before playing a CD or a DVD.
- Dock or undock the notebook from an optional Expansion Base *before* or *after* playing a disc, not *while* playing a disc.

To prevent the loss of playback while the notebook is in Windows, do not initiate Standby or Hibernation while playing a disc. If Standby or Hibernation is initiated while a disc is in use, you might see the warning message “Putting the computer into Hibernation or Standby might stop the playback. Do you want to continue?” If this message is displayed, select **No**. After you select No:

- Playback might resume.

– or –

- Playback might stop and the screen might clear. To return to your work, press the power button and then restart the disc.

Protecting a CD or DVD Write Process



CAUTION: To prevent loss of work and damage to a disc:

- Before writing to a disc, connect the notebook to a reliable external power source. Do not write to a disc while the notebook is running on battery power.
- Before writing to a disc, close all open applications (including screen savers and antivirus software) except the disc software you are using.
- Do not copy directly from a source disc to a destination disc or from a network drive to a destination disc. Instead, copy from a source disc or network drive to your hard drive, and then copy from your hard drive to the destination disc.
- Do not use the notebook keyboard or move the notebook while the notebook is writing to a disc. The write process is sensitive to vibration.

Observing the Copyright Warning

It is a criminal offense, under applicable copyright laws, to make unauthorized copies of copyright-protected material, including computer programs, films, broadcasts, and sound recordings. This notebook should not be used for such purposes.

Changing DVD Region Settings



CAUTION: To prevent selecting a region setting that is not your permanent preference, consider that the region setting on your DVD-ROM drive, DVD/CD-RW Combo Drive, or DVD+RW/R and CD-RW Combo Drive can be changed only 5 times.

- The region setting you select the fifth time becomes the permanent region setting on the DVD-ROM drive or Combo Drive.
 - The number of allowable region changes remaining on the drive is displayed in all software that can be used to change a DVD region setting.
 - The region settings must be changed in Windows.
-

Most DVDs that contain copyrighted files also contain region codes. The region codes help protect copyrights internationally.

You can play a DVD containing a region code only if the region code on the DVD matches the region setting on your DVD-ROM drive or Combo Drive.

- If the notebook is in Windows and the region code on a DVD does not match the region setting on your DVD-ROM drive or Combo Drive, a “Playback of content from this region is not permitted” message is displayed when you insert the DVD.
- If the notebook is in QuickPlay and the region code on a DVD does not match the region setting on your DVD-ROM drive or Combo Drive, message about your DVD region setting is also displayed.

To play the DVD, you must change the region setting on your DVD-ROM drive or Combo Drive. DVD region settings can be changed in the Windows operating system and in some Windows multimedia applications, as described in the next 2 sections, but not in QuickPlay.



If the notebook is in QuickPlay when a DVD region message is displayed, you must turn off the notebook in QuickPlay and then start the notebook in Windows. When the notebook is in Windows, you can change the region setting on your DVD drive or Combo Drive by following the procedures in either of the next 2 sections.

Changing DVD Settings in Windows

To change DVD region settings in the Windows operating system:

1. Select **Start > Control Panel > Performance and Maintenance > System**. Select the **Hardware** tab. On the Hardware tab, select the **Device Manager** button.
2. Select **DVD/CD-ROM drives**, right-click the DVD-ROM drive or Combo Drive for which you want to change the region setting, and then select **Properties**.
3. Select the **DVD Region** tab, and then follow the instructions on the screen.

Changing DVD Settings in a Windows Multimedia Application

If you use Sonic RecordNow! or InterVideo WinDVD Player software, you might find it more convenient to change DVD region settings within those applications than to change DVD region settings in Windows.

To access instructions for changing DVD region settings within

- Sonic RecordNow!, select **Start > All Programs > Sonic RecordNow!** Then select the Help button, identified with a question mark icon, in the RecordNow! console.
- InterVideo WinDVD Player, select **Start > All Programs > InterVideo WinDVD Player.** Then select **Help** on the menu bar of the WinDVD console.

Depending on your region and notebook model, multimedia applications such as Sonic RecordNow! and InterVideo WinDVD Player might be included with your notebook.

Windows Multimedia Software

The following sections describe Windows multimedia software. For information about QuickPlay multimedia software, see [Chapter 2, “QuickPlay.”](#)

Multimedia Software Overview

A variety of Windows multimedia applications that you can use to play, create, and manage digital storage media is included with your notebook. Most can be accessed from a desktop icon or from **Start > All Programs**. Others might be provided on CD.

For general information about installing an application from a CD or a an application that is preloaded but not preinstalled, refer to the “Installing Additional Software” section in the *Help and Support Guide* on the *Notebook Documentation* CD. A printed edition of the *Help and Support Guide* is included with your notebook. For specific information about installing WinDVD Creator, see the “[Installing WinDVD Creator](#)” section later in this chapter.

Most Windows multimedia applications include a Help file that you can access from the menu bar or from an icon that might be identified with a question mark. Most applications also include tutorials.

You can obtain HP customer support for any multimedia application included with your notebook.



Some CDs and DVDs contain player software which is not supported by HP, such as PCFriendly. If you insert a disc that contains player software which is not supported by HP, you are prompted to install the player software. If you prefer to use multimedia applications which are supported by HP, decline the player installation and close the installation window.

Before using any multimedia application, it is recommended that you review the “[Setting AutoPlay Preferences](#)” and “[Protecting Playback](#)” and “[Protecting a CD or DVD Write Process](#)” sections earlier in this chapter.

Selecting Multimedia Applications

The following list describes the capabilities of some of the Windows multimedia applications that might be included with your notebook.

The multimedia software included with your notebook is determined by your region and notebook model.

- Microsoft Windows Media Player can be used to play CDs and DVDs, copy music to or from CDs, listen to Internet radio stations, and search for and organize audio and video files.
- Sonic RecordNow! can be used to back up data or audio CDs and DVDs, transfer audio files from a CD to a hard drive, play movies, and create audio CDs.
- InterVideo WinDVD Player can be used to play DVDs.
- Windows MovieMaker can be used to create and edit home movies using basic drag-and-drop procedures.
- InterVideo WinDVD Creator can be used to create, edit, and burn movies to a DVD or video CD or to present a group of still photographs as a slide show. WinDVD Creator is provided on CD. For installation instructions, see the [“Installing WinDVD Creator”](#) section later in this chapter.

Your notebook might include additional multimedia applications. Be sure to explore

- Your desktop icons.
- The applications listed at **Start > All Programs**.
- The preloaded items that might be available at **Start > All Programs > SW Setup**.

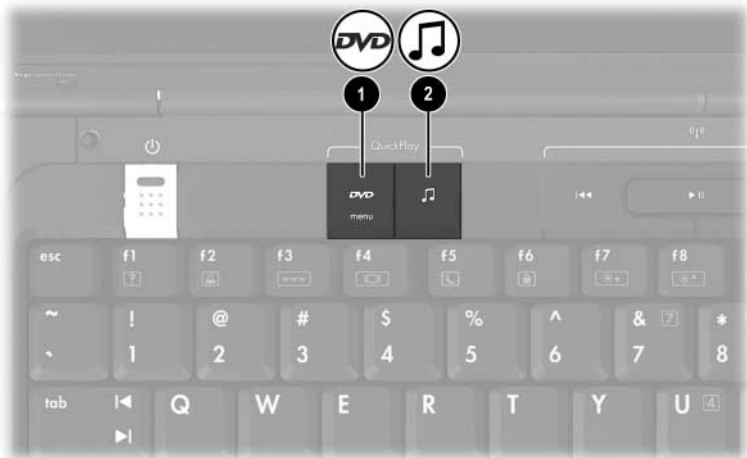
Opening Default Windows Multimedia Applications

When the notebook is in Windows:

- To open your notebook default DVD player application, press the DVD button ❶.
- To open the default music player application, press the music button ❷.

To change the function of the DVD button or the music button in Windows or to change the default DVD player or music player application, see the [“Quick Launch Buttons Control Panel”](#) section in [Chapter 9, “Software Updates and Recoveries and System Software.”](#)

The DVD button and the music button have other functions when the notebook is off, in Hibernation, or in QuickPlay. For summary of DVD button functions, see the [“DVD Button”](#) section in [Chapter 1, “Hardware.”](#) For a summary of music button functions, see the [“Music Button”](#) section in Chapter 1.



Installing WinDVD Creator

If WinDVD Creator is included with your notebook, it is provided on an *InterVideo WinDVD Creator* CD.

WinDVD Creator can be installed only from a DVD/CD-RW Combo Drive or a DVD+RW/R and CD-RW Combo Drive. If your system does not include either of these drives, you cannot install WinDVD Creator from an *InterVideo WinDVD Creator* CD.

To install WinDVD Creator:

1. Connect the notebook to reliable external power.
2. Make sure the notebook is on and in Windows.
3. Close any open applications.
4. Insert the *InterVideo WinDVD Creator* CD into the Combo Drive. After several seconds, a Windows installation wizard is displayed.

If the installation wizard does not display, your AutoPlay settings might have been modified. To proceed with the WinDVD installation, select **Start > Run**. In the **Open** text field, type: x:\setup.exe (where x is your Combo Drive designation), and then select **OK**.

5. When the installation wizard is displayed, follow the installation instructions on the screen.

For more information about AutoPlay settings, see the [“Setting AutoPlay Preferences”](#) section earlier in this chapter.

Wireless (Select Models Only)

If your notebook is equipped with an integrated wireless device such as 802.11 or Bluetooth wireless devices, you have a wireless notebook.

- An 802.11 wireless notebook can connect to wireless networks in corporate offices, your home, and public places. Wireless networks include wireless local area networks (WLANs) or “hotspots.” Hotspots are wireless access points available in public places, such as airports, restaurants, coffee shops, hotels, and universities.
- A Bluetooth wireless notebook can connect to other Bluetooth wireless-enabled devices using a wireless personal area network (PAN).

Your notebook has a button that may be used to enable and disable the 802.11 and Bluetooth wireless devices and an associated light to indicate the state of the wireless devices. The following illustration shows the wireless button ❶ and light ❷



In addition to the wireless button and light, your notebook has a software utility, Wireless Assistant, that enables you to control your wireless devices. Wireless Assistant enables you to turn on and off the 802.11 and Bluetooth wireless devices individually. For more information on using Wireless Assistant, refer to the [“Device Power States”](#) section in this chapter.

Wireless Local Area Network (Select Models Only)

With the 802.11 wireless device, you can access a wireless local area network (WLAN), which is composed of other computers and accessories linked by a wireless router or a wireless access point.

- A large scale WLAN, such as a corporate WLAN or public WLAN hotspot, typically uses wireless access points that can handle a large number of computers and accessories and can separate critical network functions.
- A home or small office WLAN typically uses a wireless router, which enables several wireless and wired computers to share an Internet connection, a printer, and files without additional pieces of hardware or software. The terms *wireless access point* and *wireless router* are often used interchangeably.

Notebooks with 802.11 WLAN devices may support one or more of 3 IEEE physical layer standards:

- 802.11a
- 802.11b
- 802.11g

There are 3 popular implementations of WLAN adapters:

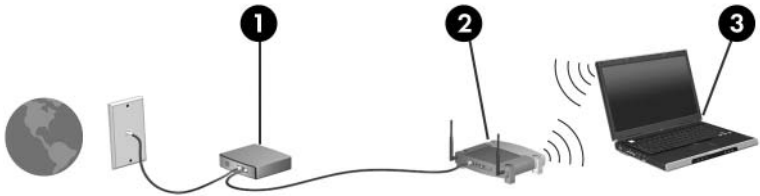
- 802.11b only
- 802.11b/g
- 802.11a/b/g

802.11b, the first popular WLAN standard, supports data rates of up to 11 Mbps and operates at a frequency of 2.4 GHz. 802.11g, which came later, also operates at 2.4 GHz but supports data rates of up to 54 Mbps. An 802.11g WLAN device is backward compatible with 802.11b devices, so they can operate on the same network. 802.11a supports data rates of up to 54 Mbps but operates at a frequency of 5 GHz. 802.11a is not compatible with 802.11b and 802.11g. For information on identifying the type of device in your notebook, refer to the [“Identifying a WLAN Device”](#) section in this chapter.

Setting Up a WLAN in Your Home

To set up a WLAN and connect to the Internet in your home, you need the following equipment. The illustration below shows an example of a completed wireless network installation that is connected to the Internet. This wireless network includes

- An optional broadband modem (either DSL or cable) and high-speed Internet service purchased from an Internet service provider (ISP) ❶.
- An optional wireless router (purchased separately) ❷.
- Your wireless notebook ❸.




As this network grows, additional wireless and wired computers can be connected to the network to access the Internet.



If you need technical assistance to install your WLAN, contact the router manufacturer or your ISP.

Using a WLAN Connection

To use a WLAN connection:

- Verify that all drivers required by the 802.11 wireless device are installed and that the 802.11 wireless device is correctly configured.
 -  If you are using an integrated 802.11 wireless device, all required drivers are installed and the adapter is preconfigured and ready for use.
- If you are using an integrated 802.11 wireless device, verify that the 802.11 wireless device is turned on. When the 802.11 wireless device is turned on, the wireless light is turned on. If the wireless light is off, turn on the 802.11 wireless device. Refer to the “[Device Power States](#)” section.
- For your home WLAN, verify that your router is correctly configured. For instructions, refer to your router documentation.



The functional range for subsequent WLAN connections varies, depending on your notebook WLAN implementation, router manufacturer, and interference from varying types of walls and other electronic devices.

For more information about using a WLAN connection:

- Refer to information from your ISP and the documentation included with your wireless router and other WLAN equipment.
- Access the information and Web site links provided at **Start > Help and Support**.
- Refer to the documentation included with your notebook. The *Troubleshooting* guide on the *Notebook Documentation* CD contains a section about wireless LAN device problems and resolutions.

Using Wireless Security Features

When you set up your own WLAN or access an existing WLAN, always ensure that security features are protecting the WLAN. If you do not enable security on your WLAN, an unauthorized wireless user can access your notebook data and use your Internet connection without your knowledge.

The most common security levels are Wi-Fi Protected Access (WPA)-Personal and Wired Equivalent Privacy (WEP). In addition to enabling WPA-Personal or WEP security encryption on the router, you may want to use one or more of the following security measures:

- Change the default network name (SSID) and password.
- Use a firewall.
- Set security on your Web browser.
- Enable MAC address filtering on the router.

For more information about WLAN security, refer to the HP Web site at <http://www.hp.com/go/wireless> for details.

Installing Wireless Software (Optional)

Microsoft Windows XP supports WLAN configuration with the Zero Client Configuration feature. HP provides a separate WLAN configuration utility that must be installed if you plan to use Cisco Compatible Extensions. Cisco Compatible Extensions enable wireless devices to use Cisco-based WLANs.

Identifying a WLAN Device

To install HP WLAN software for an integrated 802.11 wireless device, you need to know the name of the integrated 802.11 wireless device on your notebook. To identify an integrated 802.11 wireless device:

1. Display the names of all the 802.11 wireless devices on your notebook:
 - a. Select **Start > My Computer**.
 - b. Right-click in the My Computer window.
 - c. Select **Properties > Hardware** tab > **Device Manager > Network Adapters**.
2. Identify the 802.11 wireless device from the list that is displayed:
 - ☐ The listing for an 802.11 wireless device includes the term *wireless LAN*, *WLAN*, or *802.11*.
 - ☐ If no 802.11 wireless device is listed, either your notebook does not have an integrated 802.11 wireless device, or the driver for the 802.11 wireless device is not properly installed.

Accessing WLAN Software and Documentation

Your WLAN software is preloaded on your notebook and is available in the Software Setup utility.

To install the WLAN software:

- » Select **Start > All Programs > Software Setup**, and then follow the instructions on the screen. (When you are prompted to select the software you want to install, select or clear the corresponding check boxes.)

The WLAN software is also available as a SoftPaq at the HP Web site. To access, download, and install the SoftPaq, use either of the following procedures:

■ **Select Start > Help and Support.**

– or –

■ Visit the HP Web site at <http://www.hp.com/support>:

- a. Choose your language and region.
- b. Select the **Download Drivers and Software** radio button.
- c. Enter your computer model information, and then follow the instructions provided at the Web site.



WLAN software is provided in the Network category. To access model information about your computer, refer to the serial number label. The serial number label is on the bottom of the notebook.

To access documentation for your WLAN software:

1. Install the WLAN software as instructed earlier in this chapter.
2. Open the utility.
3. Select **Help** on the menu bar.

Troubleshooting Devices

For more troubleshooting information, visit the HP Web site (<http://www.hp.com/go/wireless>) or refer to the documentation included with your notebook.

Bluetooth (Select Models Only)

The Bluetooth device provides short-range wireless communications that replace the physical cable connections that traditionally link electronic devices such as

- Network access points.
- Computers (desktop, notebook, PDA).
- Phones (cellular, cordless, smart phone).
- Imaging devices (printer, camera).
- Audio devices (headset, speakers).

The devices are represented in the Bluetooth for Windows software by graphical icons that resemble their physical features, which makes them easily recognizable and distinguishes them from other classes of devices.

The Bluetooth for Windows software provides the following functions:

- Personal Information Management (PIM) item transfer—Sends and receives information files such as business cards, calendar items, notes, and message items to and from another Bluetooth computer or device.
- PIM synchronization—Synchronizes PIM data between a computer, PDA, or cell phone using Bluetooth.
- File Transfer—Sends data to and receives data from another Bluetooth computer.
- Network access (Personal Area Networking Profile)—Enables two or more Bluetooth devices to form an ad-hoc (peer-to-peer) network. Provides a mechanism that enables a Bluetooth device to access a remote network through a network access point. The network access points can be traditional LAN data access points or group ad-hoc networks that represent a set of devices that are attached only to one another.

- Dial-up networking—Connects Bluetooth devices to the Internet.
- Bluetooth serial port—Transfers data over the Bluetooth link using a virtual COM port.
- Hands-Free—Enables a vehicle-embedded, hands-free unit or a notebook serving as a hands-free unit to establish a wireless connection to a cellular phone and to act as the Bluetooth cellular phone audio input and output mechanism.
- Basic imaging—Provides a wireless connection between a Bluetooth-enabled camera and other Bluetooth devices. The camera can be controlled remotely by a notebook, and images can be transferred from a camera to be stored on a computer or to be printed.
- Human interface device—Provides a wireless connection to other Bluetooth devices, such as keyboards, pointing devices, gaming devices, and remote monitoring devices.
- Fax—Provides a Bluetooth connection that enables a notebook to send or receive a fax message using a Bluetooth cellular phone or modem.
- Headset—Provides a wireless connection between a headset and a notebook or cellular phone. The headset acts as the device's audio input and output mechanism and increases mobility.

For more information about using Bluetooth with your notebook, refer to the *Wireless Documentation* CD included with your notebook.

Device Power States

The wireless button **1** enables and disables 802.11 wireless and Bluetooth devices in conjunction with Wireless Assistant. By default, the 802.11 wireless and Bluetooth devices and wireless light **2** are turned on when you turn on the notebook.



Turning on a wireless device does not automatically create a WLAN or connect you to a WLAN. For information on setting up a WLAN refer to the [“Wireless Local Area Network \(Select Models Only\)”](#) section in this chapter.



The 802.11 wireless and Bluetooth devices have 2 power states:

- Enabled
- Disabled


You can enable and disable the wireless devices with the wireless button. When the wireless devices are enabled with the wireless button, you can use Wireless Assistant to turn on and off the devices individually. When the wireless devices are disabled, you must enable them before you can turn them on or off with Wireless Assistant.

To view the state of your wireless devices, place the cursor over the Wireless Assistant icon in the notification area, or open Wireless Assistant by double-clicking the icon in the notification area. Wireless Assistant displays the status of the devices as on, off, or disabled.

For more information about Wireless Assistant:

1. Open Wireless Assistant by double-clicking the icon in the notification area.
2. Select the **Help** button.

Turning On the Devices

| If | And | Then |
|--|--|---|
| <ul style="list-style-type: none"> ■ Wireless Assistant shows that both WLAN and Bluetooth are off ■ Wireless light is off | You want to turn on either or both devices | <ol style="list-style-type: none"> 1. Right-click the Wireless Assistant icon in the notification area. 2. Select the device or devices you want to turn on. <p> If the wireless devices are turned off, pressing the wireless button disables both devices. The button does not turn on the devices.</p> |
| <ul style="list-style-type: none"> ■ Wireless Assistant shows that both WLAN and Bluetooth are disabled* ■ Wireless light is off | You want to turn on either or both devices | <ol style="list-style-type: none"> 1. Press the wireless button. (The devices return to their previous on or off state.) 2. If the wireless devices are turned off, right-click the Wireless Assistant icon in the notification area. 3. Select the device or devices you want to turn on. |
| <ul style="list-style-type: none"> ■ Wireless Assistant shows that one device is on and the other device is off ■ Wireless light is on | You want to turn on either or both devices | <ol style="list-style-type: none"> 1. Right-click the Wireless Assistant icon in the notification area. 2. Select the device or devices you want to turn on. |

*If the wireless devices are not both on when you disable the devices, pressing the wireless button again returns the devices to their previous on or off state. Pressing the button does not turn on both devices.



If you want your wireless devices to be turned on when you turn on your notebook, you must turn them on before you shut down or restart.

Turning Off and Disabling the Devices

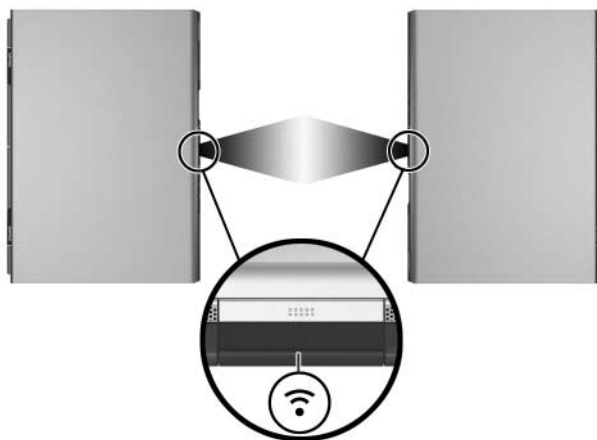
| If | And | Then |
|---|---|---|
| <ul style="list-style-type: none"> ■ Wireless Assistant shows that both WLAN and Bluetooth are on ■ Wireless light is on | You want to disable both devices You want to turn off either or both devices | Press the wireless button. 1. Right-click the Wireless Assistant icon in the notification area. 2. Select the device or devices you want to turn off. |
| <ul style="list-style-type: none"> ■ Wireless Assistant shows that both WLAN and Bluetooth are off ■ Wireless light is off | You want to disable both devices | Press the wireless button. |
| <ul style="list-style-type: none"> ■ Wireless Assistant shows that one device is on and the other device is off* ■ Wireless light is on | You want to disable both devices You want to turn off both devices. | Press the wireless button. 1. Right-click the Wireless Assistant icon in the notification area. 2. Select the device or devices you want to turn off. |
| *If the wireless devices are not both on when you disable the devices, pressing the wireless button again returns the devices to their previous on or off state. Pressing the button does not turn on both devices. | | |

Infrared Communications

The notebook is IrDA-compliant—4 megabits per second (Mbps) standard—and can communicate with another infrared-equipped device that is also IrDA-compliant.

The infrared port supports both low-speed connections of up to 115 kilobits per second (Kbps) and high-speed connections of up to 4 Mbps. Infrared performance may vary depending on the performance of infrared peripherals, distance between infrared devices, and applications used.

Infrared signals are sent through an invisible beam of infrared light and require an unobstructed line-of-sight path.



Setting Up an Infrared Transmission

For information about using infrared software, refer to your operating system Help file.

To set up infrared devices for optimal transmission:

- Prepare the infrared ports on both devices for transmission.
- Position the devices so that their infrared ports face one another at a distance no greater than 1 meter (3.3 feet).
- Position the ports so that they face one another directly. Because the maximum capture angle is 30 degrees, the ports must be aligned no more than 15 degrees off-center.
- Shield the ports from direct sunlight, flashing incandescent light, and energy-saving fluorescent light.
- Be sure that no signals from remote control or other wireless devices, such as headphones or audio devices, aim at a port.
- During the transmission, do not move either device and do not allow objects or movement to disrupt the beam.

Using Standby with Infrared

Standby is not compatible with infrared transmission. If the notebook is in Standby, an infrared transmission cannot be initiated. If Standby is initiated during an infrared transmission, the transmission stops. To resume from Standby, press the power/standby switch to the right or left. The transmission resumes when the notebook resumes from Standby. However, any program that was using the infrared transmission when Standby was initiated may not continue at the point it was stopped. For example, if a program was printing when Standby was initiated, the program resumes transmission after the notebook resumes, but the print job may not resume.

Security Feature Recommendations



Security solutions are designed to act as deterrents. These deterrents may not prevent a product from being mishandled or stolen.

The security features provided with the notebook can protect the notebook, personal information, and data from a variety of risks. Depending on your environment, some security features may be unnecessary. It is recommended that you follow the procedures in this chapter for using

- Antivirus software
- Windows updates
- Firewall software

In addition to the Windows operating system security measures, the following table may help you decide which other security features to use.

Most of these security features can be configured in the Setup utility. For more information, refer to [“Setup Utility”](#) in [Chapter 9, “Software Updates and Recoveries and System Software.”](#)

| To Protect Against | Use This Security Feature |
|--|--|
| Unauthorized use of the notebook | <ul style="list-style-type: none">■ Quick Lock■ Power-on password* |
| Unauthorized access to the Setup utility (f10) | HP administrator password* |
| Unauthorized startup from a CD or a diskette | Device Security* |
| Unauthorized access to data | <ul style="list-style-type: none">■ HP administrator password■ Firewall software■ Windows updates |
| Unauthorized access to the BIOS settings and other system identification information | HP administrator password* |
| Unauthorized removal of the notebook | Security cable slot (used with an optional security cable) For more information on the security cable slot, refer to the “Optional Security Cable” section later in this chapter. |

*This security feature is configured in the Setup utility. The Setup utility is a non-Windows utility accessed by pressing **f10** when the notebook is started or restarted. The procedures for using the Setup utility to set specific security preferences are provided in this chapter. For information about displaying system information and using other Setup utilities, refer to [“Setup Utility”](#) in [Chapter 9, “Software Updates and Recoveries and System Software.”](#)

Security Preferences in the Setup Utility

Most security preferences are set in Setup utility. Because the Setup utility is a non-Windows utility, it does not support the pointing devices on your notebook. When using the Setup utility, you must use the keys on your notebook to navigate and make selections.

For more details, refer to [“Setup Utility” in Chapter 9, “Software Updates and Recoveries and System Software.”](#)

QuickLock

The **fn+f6** hotkey initiates the operating system QuickLock security feature.

QuickLock protects your notebook by displaying the operating system log-on screen. While the log-on screen is displayed, the notebook cannot be accessed until a Windows user password or Windows administrator password is entered.

Before you can use the QuickLock feature, you must set a Windows user password or Windows administrator password. For instructions, refer to the Help and Support Center by selecting **Start > Help and Support**.

- To initiate QuickLock, press **fn+f6**.
- To exit QuickLock, enter your Windows user password or Windows administrator password.

Passwords

Most security features use passwords. Whenever you set a password, write down the password and store it in a secure location away from the notebook.

- If you forget your power-on password and your HP administrator password, you cannot start up the notebook or restore from Hibernation. Call Customer Care or your authorized service partner for additional information.
- If you forget your HP administrator password, you will not be able to access the Setup utility.

HP and Windows Passwords

HP security features and Windows operating system security features work independently from one another. For example, a device disabled in the Setup utility cannot be enabled in Windows.

Some password options are provided by your HP software, and others are provided by your operating system. HP passwords and Windows passwords are also independent of one another. The following table lists the different passwords used by HP and Windows and describes their functions. For additional information about Windows passwords, such as screen-saver passwords, refer to **Start > Help and Support**.

| HP Passwords | Function |
|---|---|
| HP administrator password | Protects access to the Setup utility. |
| Power-on password | Used to access the notebook during startup and when you restart the notebook. |
| Windows Passwords | Function |
| Administrator password* | Protects Windows administrator-level access to notebook contents. |
| User password* | Protects access to a Windows user account. To protect access to notebook contents when the notebook is resumed from Standby, you can set a password prompt to display. Refer to “Initiate QuickLock (fn+f6)” in Chapter 3, “Keyboard.” |
| *For information about setting a Windows administrator password or a Windows user password, select Start > Help and Support . | |

HP and Windows Password Guidelines

HP and Windows passwords are not interchangeable. You must use an HP password at an HP password prompt and a Windows password at a Windows password prompt. For example:

- If a power-on password is set, the power-on password (not a Windows password) must be entered when the notebook starts up or restores from Hibernation.
- If you set Windows to prompt for a password before resuming from Standby, a Windows password (not a power-on password) must be entered to resume from Standby.

The same word or series of letters or numbers used for an HP password can be used for another HP password or for a Windows password, with the following considerations:

- The text of HP passwords can be any combination of up to 8 letters and numbers and is not case sensitive.
- An HP password must be set and entered with the same type of keys. For example, an HP password set with keyboard number keys will not be recognized if it is entered with keypad number keys.

For information about the keypad, refer to [“Keypads”](#) in [Chapter 3, “Keyboard.”](#)

Although you can use the same text for various passwords, HP passwords and Windows passwords function independently. Even if you plan to use the same text for an HP password and a Windows password, you must set the HP password in the Setup utility and the Windows password in your operating system.



Although their names are similar, an HP administrator password and a Windows administrator password have different functions. For example, a Windows administrator password cannot be used to access the Setup utility, and an HP administrator password cannot provide administrator-level access to your notebook contents. You can, however, use the same text for both passwords.

HP Administrator Password

The HP administrator password protects the configuration settings and system identification information in the Setup utility. After this password is set, it must be entered to access the Setup utility.

The HP administrator password

- Is not interchangeable with a Windows administrator password, although both can use the same word or series of letters, or numbers.
- Does not display as it is set, entered, changed, or deleted.
- Must be set and entered with the same type keys. For example, an HP administrator password set with keyboard number keys will not be recognized if you enter it with embedded numeric keypad number keys.
- Can include any combination of up to 8 letters and numbers and is not case sensitive.

Setting HP Administrator Passwords

An HP administrator password is set, changed, or deleted in the Setup utility.

To manage the password:

1. Shut down the notebook. If you are not sure whether the notebook is off or in Hibernation, turn the notebook on by pressing the power button, and then shut down the notebook through the operating system.
2. Be sure that the hard drive is inserted into the notebook (not into an optional docking device or external MultiBay).
3. Open the Setup utility by turning on or restarting the notebook. Press **f10** while Setup message is displayed in the lower-left corner of the screen.
4. Use the arrow keys to select **Security > Administrator Password**, and then press **enter**.
 - ❑ To set an HP administrator password, type your password in the **Enter New Password** and **Confirm New Password** fields, and then press **enter**.
 - ❑ To change an HP administrator password, type your current password in the **Enter Current Password** field, type the new password in the **Enter New Password** and **Confirm New Password** fields, and then press **enter**.
 - ❑ To delete an HP administrator password, type your current password in the **Enter Password** field, press **enter** 3 times, and then press **f10**.
5. To save your preferences and exit the Setup utility, press **f10**, and then follow the instructions on the screen.

Your preferences are set when you exit the Setup utility and take effect when the notebook restarts.

Entering HP Administrator Passwords

At the Enter SETUP Password prompt, type your HP administrator password with the same keys you used to set the password, and then press **enter**. After 3 unsuccessful attempts to enter the HP administrator password, you must restart the notebook and try again.

Power-On Passwords

A power-on password prevents unauthorized use of the notebook. After this password is set, it must be entered each time the notebook is turned on or restarted. A power-on password

- Does not display as it is set, entered, changed, or deleted.
- Must be set and entered with the same type keys. For example, a power-on password set with keyboard number keys will not be recognized if you enter it with embedded numeric keypad number keys.
- Can include any combination of up to 8 letters and numbers and is not case sensitive.

Setting Power-On Passwords

A power-on password is set, changed, or deleted in the Setup utility.

To manage the password:

1. Shut down the notebook. If you are not sure whether the notebook is off or in Hibernation, turn the notebook on by pressing the power button, and then shut down the notebook through the operating system.
2. Be sure that the hard drive is inserted into the notebook (not into an optional docking device or external MultiBay).

3. Open the Setup utility by turning on or restarting the notebook. Press **f10** while Setup message is displayed in the lower-left corner of the screen.
4. Use the arrow keys to select **Security > Power-On password**, and then press **enter**.
 - ❑ To set a power-on password, type the password in the **Enter New Password** and **Confirm New Password** fields, and then press **enter**.
 - ❑ To change a power-on password, type the current password in the **Enter Current Password** field, type the new password in the **Enter New Password** and **Confirm New Password** fields, and then press **enter**.
 - ❑ To delete a power-on password, type the current password in the **Enter Current Password** field, press **enter** 3 times, and then press **f10**.
5. To save your preferences and exit the Setup utility, press **f10**, and then follow the instructions on the screen.

Your preferences are set when you exit the Setup utility and take effect when the notebook restarts.

Entering Power-On Passwords

At the power-on password prompt, type your password, and then press **enter**. After 3 unsuccessful attempts to enter the password, you must restart the notebook and try again.

Device Security

From the Setup utility Device Security menu, you can disable the ability of the notebook to start from a CD or a diskette drive.

To disable or reenble notebook capabilities in the Setup utility:

1. Shut down the notebook. If you are not sure whether the notebook is off or in Hibernation, turn the notebook on by pressing the power button, and then shut down the notebook through the operating system.
2. Be sure that the hard drive is inserted into the notebook (not into an optional docking device or external MultiBay).
3. Open the Setup utility by turning on or restarting the notebook. Press **f10** while Setup message is displayed in the lower-left corner of the screen.
4. Select **Security > Device Security**, and then enter your preferences.
5. Use the arrow keys to select an item. Then:
 - ❑ To disable an item, press **f5** or **f6** to toggle the field for the item to **Disable**, and then press **enter**.
 - ❑ To reenble an item, press **f5** or **f6** to toggle the field for the item to **Enable**, and then press **enter**.
6. When a confirmation prompt with your preference selected is displayed, press **enter** to save your preference.
7. To save your preferences and exit the Setup utility, press **f10**, and then follow the instructions on the screen.

Your preferences are set when you exit the Setup utility and take effect when the notebook restarts.

Antivirus Software

When you use the notebook for e-mail, network, or Internet access, you expose the notebook to computer viruses. Computer viruses can disable your operating system, applications, or utilities or cause them to function abnormally.

Antivirus software can detect most viruses, destroy them, and in most cases, repair damage they have caused. To provide protection against newly discovered viruses, antivirus software must be updated.

Norton AntiVirus is preinstalled on the notebook. For information about using and updating the Norton AntiVirus software:

» Select **Start > All Programs > Norton AntiVirus > Help and Support**.

For more information about computer viruses:

1. Select **Start > Help and Support**.
2. Type viruses into the **Search** field.
3. Press **enter**.

Critical Security Updates for Windows XP



CAUTION: Because new computer viruses are being detected all the time, it is recommended that you install all critical updates as soon as you receive an alert from Microsoft. You should also run Windows Update on a monthly basis to install the latest recommended updates from Microsoft.

A *Critical Security Updates for Windows XP* disc may have been included with your notebook to provide additional updates delivered after the computer was configured. Throughout the life of the computer, Microsoft will continue to update the operating system and make these updates available on their Web site.

To update your system using the *Critical Security Updates for Windows XP* disc:

1. Insert the disc into the drive. (The disc automatically runs the installation application.)
2. Follow the on-screen instructions to install all updates. (This may take a few minutes.)
3. Remove the disc.

Firewall Software

When you use the notebook for e-mail, network, or Internet access, it is possible for unauthorized persons to obtain information about you, your notebook, and your data. Firewalls monitor all incoming and outgoing traffic on your computer by including features such as logging and reporting, automatic alarms, and user interfaces for configuring the firewall. To protect your privacy, it is recommended that you use firewall software.

Your notebook comes with preinstalled firewall software. Refer to the online Help in the firewall software application for additional information.



Under some circumstances a firewall can block access to Internet games, interfere with printer or file sharing on a network, or block authorized e-mail attachments. To temporarily solve the problem, disable the firewall, perform the task that is interfering with the firewall, and then reenabling the firewall. To permanently resolve the problem, reconfigure the firewall.

Optional Security Cable

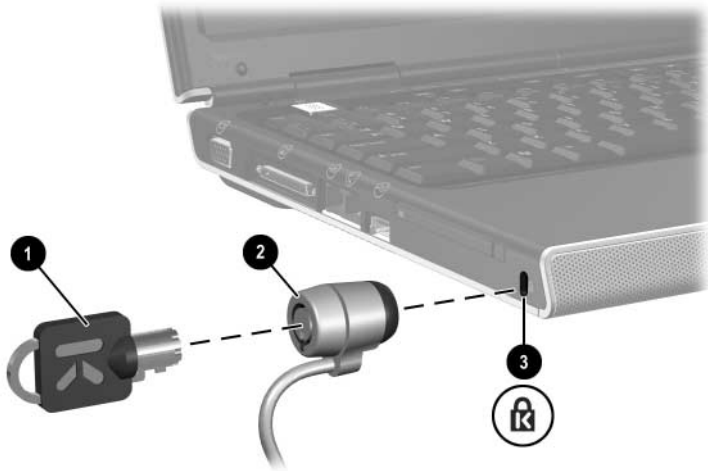


Security solutions are designed to act as deterrents. These deterrents may not prevent a product from being mishandled or stolen.

To install a security cable:

1. Loop the security cable around a secured object.
2. Insert the key ❶ into the cable lock ❷.

Insert the cable lock into the security cable slot ❸, and lock the cable lock with the key.



Hardware Upgrades and Replacements

Device Connections

Connecting Any Powered Device

To connect the notebook to an optional external device that has a power cord:

1. Be sure the device is turned off.
2. Connect the device to the jack or port on the notebook specified by the device manufacturer.
3. Plug the device power cord into a grounded AC outlet.
4. Turn on the device.



If an optional monitor that is properly connected to the monitor port does not display an image, try pressing the **fn+f4** hotkey to switch the image to the monitor. For more information about image switching, see the [“Switch Image \(fn+f4\)”](#) section in [Chapter 3, “Keyboard.”](#)

To disconnect a powered external device from the notebook:

1. Turn off the device.
2. Disconnect the device from the notebook.

Connecting a USB Device

A device connected to the notebook by USB can be used only when the notebook is in Windows.

USB (Universal Serial Bus) is a hardware interface that can be used to connect an external device such as a USB keyboard, mouse, drive, printer, scanner, or hub to the notebook or an optional Expansion Base.

A hub is a connecting device that can be either powered or unpowered. USB hubs can be connected to a USB port on the notebook or to other hubs. Hubs support varying numbers of USB devices and are used to increase the number of USB devices in the system.

- Powered hubs must be connected to external power.
- Unpowered hubs must be connected either to a USB port on the notebook or to a port on a powered hub.

The 3 USB ports on the notebook support USB 2.0-compliant, USB 1.1-compliant, and USB 1.0-compliant devices.



Connecting a 1394 Device

A device connected to the notebook through the 1394 port can be used only when the notebook is in Windows.

IEEE 1394 is a hardware interface that can be used to connect a high-speed multimedia or data storage device to the notebook. Scanners, digital cameras, and digital camcorders often require a 1394 connection.

You might have to load device-specific drivers and other software before using some 1394 devices. For information about device-specific software, refer to the device documentation or to the Web site of the device manufacturer or provider.

The notebook 1394 port, illustrated below, supports IEEE 1394a devices.



Connecting a Communication Device

For information about connecting and using the modem, refer to the modem guides on the *Notebook Documentation* CD. Basic modem connection instructions are also provided in the printed *Getting Started* guide included with your notebook.

For information about using an optional wireless device, visit <http://www.hp.com/go/wireless>. Wireless devices, including Bluetooth headphones, cannot be used in QuickPlay.

For information about using the Network Service Boot feature to connect the notebook to a PXE (Preboot Execution Environment) server during startup, see the “[Using Advanced Setup Utility Features](#)” section in [Chapter 9, “Software Updates and Recoveries and System Software.”](#)

For additional information about modem, wireless, and network connections, select **Start > Help and Support**. The Help and Support utility provides communication information that includes instructions, tutorials, and wizards that can help you set up or troubleshoot a variety of connections.

Modem, network, and wireless troubleshooting information is also provided in *Troubleshooting* on the *Notebook Documentation* CD.

Digital Memory Cards

A digital memory card can be used only when the notebook is in Windows. Digital memory cards are often used for digital storage on cameras, camcorders, and other handheld devices.

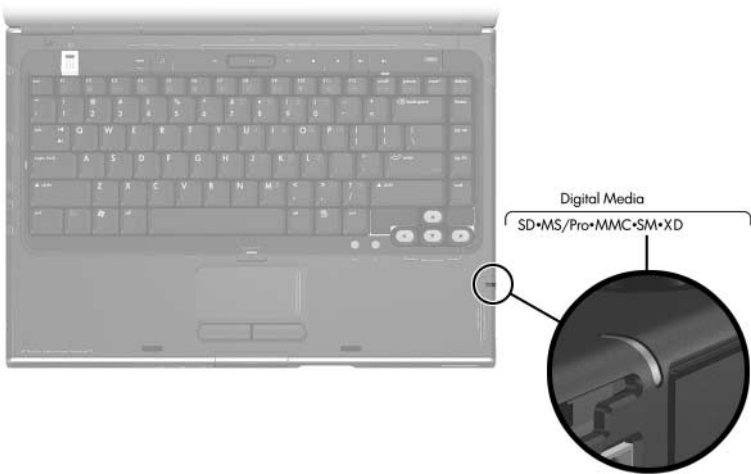
The 6-in-1 Digital Media Reader in the notebook can support:

- Memory Stick and Memory Stick Pro
- xD-Picture Card (XD)
- MultiMediaCard
- SmartMedia (SM) card
- Secure Digital (SD) Memory Card

You can set the notebook to open the files on a digital memory card in ways you specify. For example, you could set a digital memory card to open with a slide show of the photographs it contains. For instructions, see the [“Setting AutoPlay Preferences”](#) section in [Chapter 5, “Multimedia.”](#)

Using the 6-in-1 Digital Media Reader Light

The 6-in-1 Digital Media Reader light is turned on when an inserted digital memory card is being accessed. The 6-in-1 Digital Media Reader light is turned off when an inserted digital memory card is inactive or when the 6-in-1 Digital Media Reader slot is vacant.



Inserting a Digital Memory Card

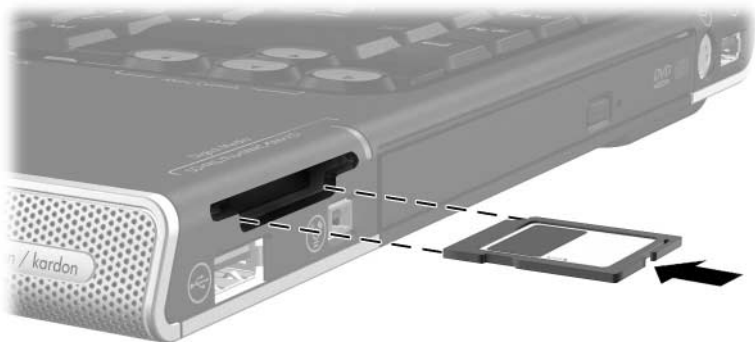


CAUTION: To prevent damage to digital memory card connectors:

- Use minimal force when inserting a digital memory card into the 6-in-1 Digital Media Reader slot.
- Do not move or transport the notebook while a digital memory card is inserted in the 6-in-1 Digital Media Reader slot.

To insert a digital memory card:

1. Hold the card label-side up with the connectors facing the notebook.
2. Gently slide the card into the 6-in-1 Digital Media Reader slot until the card is seated. (The card will extend outward slightly beyond the notebook.)



Removing a Digital Memory Card

To remove a digital memory card:

1. Close all applications and complete all activities that are using the card. (To stop a data transfer, select the **cancel** button in the Windows Copying window.)
2. Select the **My Computer** icon on the Windows Desktop.
3. Right-click the drive assigned to the card, and then select **Eject**. (The card is stopped but is not released from the 6-in-1 Digital Media Reader slot.)
4. Slide the card out of the slot.



PC Cards

A PC Card can be used only when the notebook is in Windows.

A PC Card is a credit card–sized accessory designed to conform to the standard specifications of the Personal Computer Memory Card International Association (PCMCIA). PC Cards can be used to add modem, sound, storage, wireless communication, or digital camera functions to the notebook.

The notebook PC Card slot supports one Type I or Type II 32-bit (CardBus) or 16-bit PC Card.



CAUTION: To preserve support for all PC Cards, do not install all of the software or any of the enablers provided by a single PC Card manufacturer. If you are instructed by the documentation included with a PC Card to install device drivers:

- Install only the device drivers for your Windows operating system.
 - Do not install other software, such as card services, socket services, or enablers, that might also be supplied by the PC Card manufacturer.
-

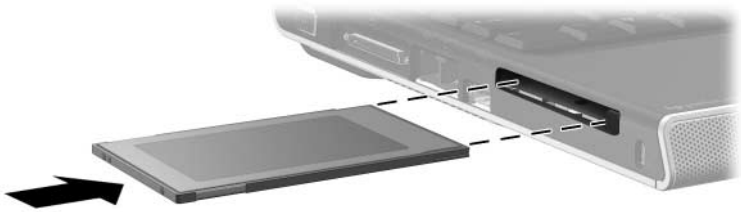
Inserting a PC Card



CAUTION: To prevent damage to the PC Card connectors:

- Use minimal force when inserting a PC Card into a PC Card slot.
 - Do not move or transport the notebook while a PC Card is inserted.
-

1. Hold the PC Card label-side up with the connectors facing the notebook.
2. Gently slide the card into the slot until the card is seated.



Stopping and Removing a PC Card



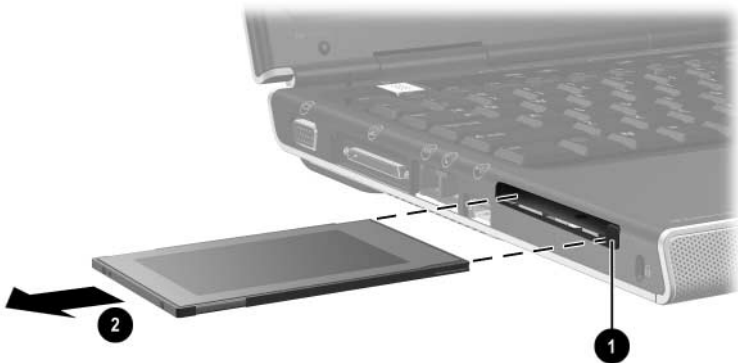
CAUTION: To prevent loss of work or an unresponsive system, stop the PC Card before removing it.



Stopping a PC Card, even if it is not in use, conserves power.

To stop or remove a PC Card:

1. Close all applications and complete all activities that are supported by the PC Card. Then
 - ❑ To stop the PC Card, select the **Safely Remove Hardware** icon on the taskbar, and then select the PC Card. (To display the **Safely Remove Hardware** icon, right-click the taskbar, select **Properties**, clear the Hide inactive icons check box, and then select **OK**.)
 - ❑ To remove the PC Card, stop the PC Card as described above, and then proceed to step 2.
2. Press the PC Card eject button ❶. (You might need to press the button once to extend the button, and then press the button again to release the PC Card.)
3. Gently slide out the PC Card ❷.



Drives

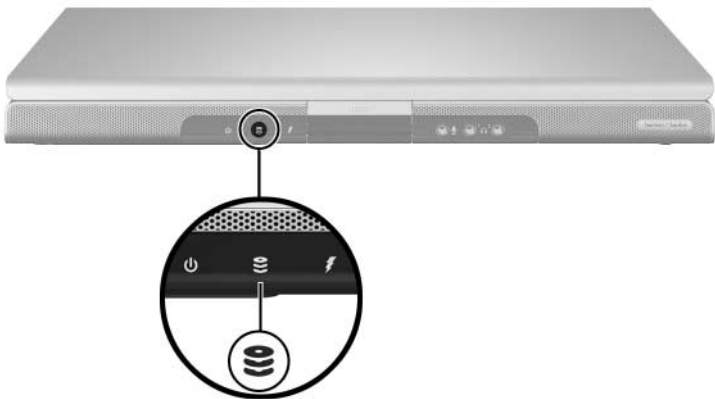
Adding a Drive to the System

The internal hard drive and optical drive are standard features of the notebook. The type of optical drive varies by notebook model.

An optional drive can be added to the system by connecting it, as instructed in the drive documentation, to one of the USB ports or to the 1394 port. Hard drive capacity can also be added with a microdrive PC Card or a digital memory card such as a Secure Digital (SD) Memory Card.

Using the IDE Drive Light

Internal hard drive or optical drive activity is indicated by the IDE (Integrated Drive Electronics) light.



Caring for Drives



CAUTION: To prevent damage to the notebook or a drive and loss of work:

- Do not remove the internal hard drive except for repair or replacement. For instructions, see the [“Replacing the Internal Hard Drive”](#) section next in this chapter.
- Electrostatic discharge can damage electronic components. To prevent electrostatic damage to the notebook or a drive, follow these 2 precautions: (1) Discharge yourself from static electricity before handling a drive by touching a grounded metal object and (2) Avoid touching the connectors on a drive. For more information about preventing electrostatic damage, refer to the “Electrostatic Discharge” chapter in *Regulatory and Safety Notices* on the *Notebook Documentation* CD.
- Excessive force can damage drive connectors. When you insert a drive, use only enough force to seat the drive.
- Handle a drive carefully. Do not drop it.
- Avoid exposing a hard drive or a diskette to devices with magnetic fields. Products with magnetic fields include video and audio tape erasure products, monitors, and speakers. Security devices with magnetic fields include airport walk-through devices and security wands. The airport security devices that check carry-on luggage, usually while it is placed on a conveyor belt, use x-rays instead of magnetism and will not damage a hard drive or a diskette.
- Do not spray a drive with cleaners.
- Avoid exposing a drive to liquids or temperature extremes.
- If you mail a drive, ship it in packaging that protects it from shock, vibration, extreme temperatures, and high humidity. Label the package “FRAGILE.”

Replacing the Internal Hard Drive

The hard drive in the hard drive bay is the internal hard drive. Remove the internal hard drive only for repair or replacement.



CAUTION: To prevent an unresponsive system and loss of work, do not begin this procedure until you

- Save your work, close all open applications, and shut down the notebook. If you are unsure whether the notebook is off or in Hibernation, turn the notebook on in Windows and then shut it down through the Windows operating system.
- Disconnect all external devices connected to the notebook.
- Disconnect the notebook from external power and remove the battery pack.

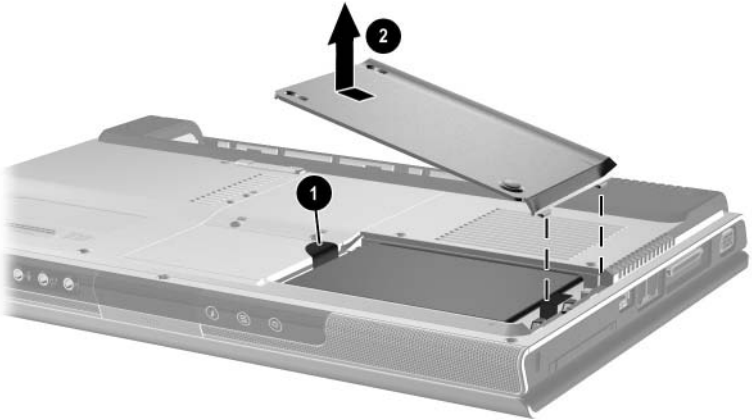
For battery pack removal instructions, see the [“Replacing a Battery Pack”](#) section in [Chapter 4, “Power.”](#)

To replace the internal hard drive:

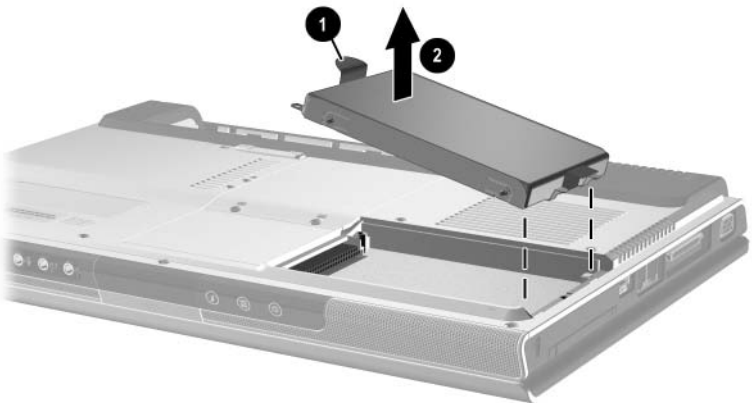
1. Turn the notebook upside down.
2. Loosen the 2 hard drive security screws.



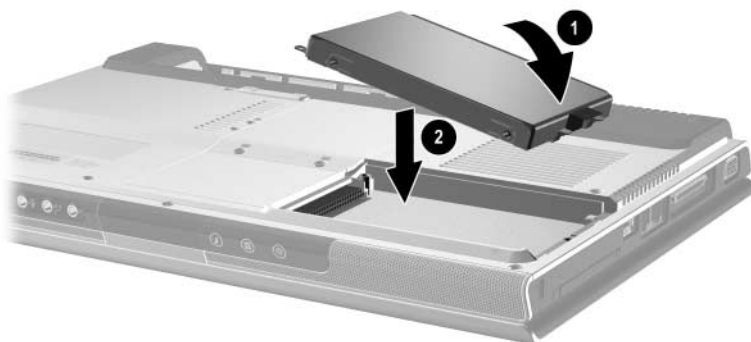
3. To remove the hard drive cover and expose the hard drive tab **1**, slide the cover **2** slightly toward the left and then lift the cover upward and away from the notebook.



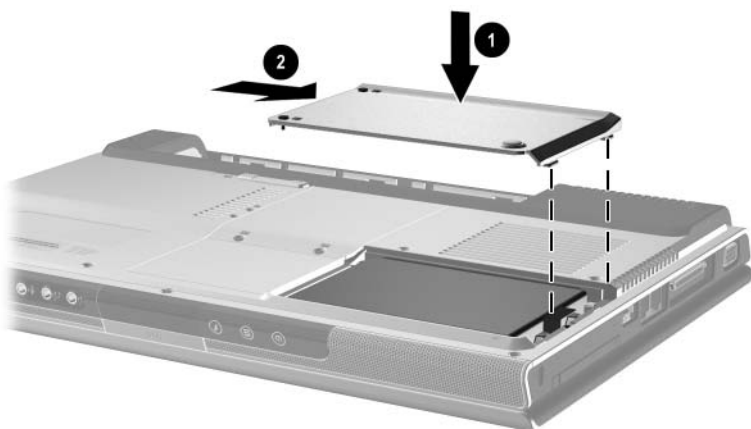
4. To remove the hard drive, pull upward on the hard drive tab **1** to release the hard drive, and then lift the hard drive **2** out of the hard drive bay.



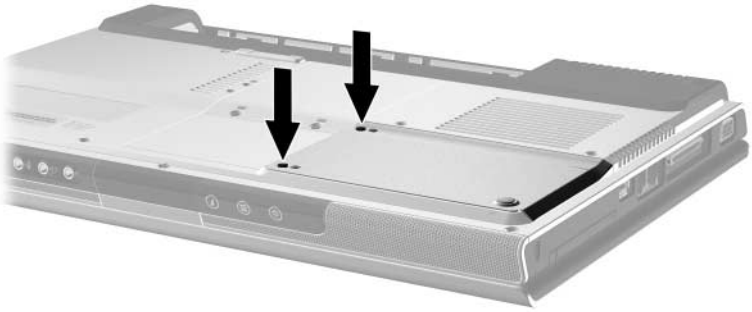
5. To insert the replacement hard drive, tilt the connector edge of the hard drive **1** downward, and then lower the hard drive into the hard drive bay until it is seated **2**.



6. Replace the hard drive cover.
 - a. Place the cover **1** over the hard drive bay.
 - b. Slide the cover slightly toward the right side of the notebook until the cover is seated **2**.



7. Tighten the 2 hard drive security screws.



Memory

The notebook has 2 memory slots. Depending on your notebook model, either one or both memory slots might contain a replaceable memory module.

Increasing Memory

You can increase the amount of RAM (random access memory) in the notebook by adding memory modules to vacant memory slots or by replacing installed memory modules.

When RAM is increased, the Windows operating system increases the hard drive space reserved for the hibernation file. Before you increase RAM, it is recommended that you verify that your hard drive has enough free space for the larger hibernation file.

- To display the amount of RAM in the system:

In Windows, select **Start > Help and Support**.

- To display both the amount of free space on your hard drive and the amount of space required by the hibernation file:

In Windows, select **Start > Control Panel > Performance and Maintenance > Power Options icon > Hibernate** tab.



The amount of free space on your hard drive is determined by the amount of space occupied by QuickPlay software as well as by the amount of space occupied by your Windows software and data files. QuickPlay software is installed in a QuickPlay partition on your hard drive.

Removing or Inserting a Memory Module



WARNING: To prevent exposure to electrical shock, access only the memory compartment during this procedure. The memory compartment and the battery and hard drive bays are the only user-accessible internal compartments on the notebook. All other areas that require a tool to access should be opened only by a service partner.



WARNING: To prevent exposure to electrical shock and damage to the notebook, shut down the notebook, unplug the power cord, and remove the battery pack before installing a memory module.



CAUTION: To prevent electrostatic discharge from damaging electronic components: before beginning this procedure, discharge yourself of static electricity by touching a grounded metal object. For more information about preventing electrostatic damage, refer to the “Electrostatic Discharge” chapter in *Regulatory and Safety Notices* on the *Notebook Documentation* CD.

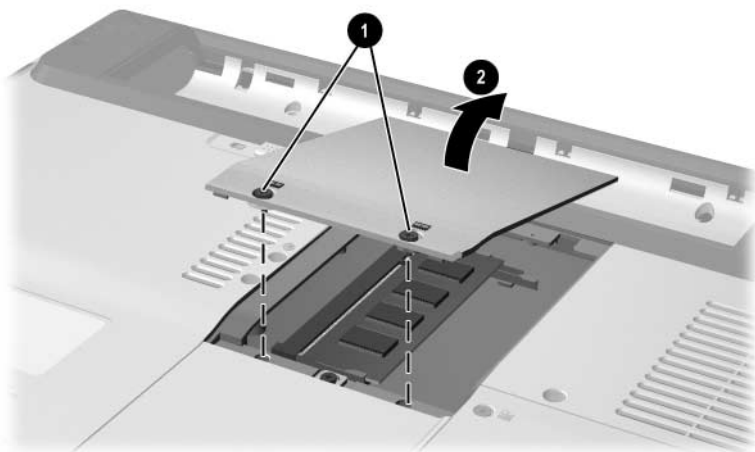
1. Save your work and close all open applications.
2. Shut down the notebook.

If you are unsure whether the notebook is off or in Hibernation, turn the notebook on in Windows and then shut it down through the Windows operating system.

3. Disconnect all external devices connected to the notebook.
4. Disconnect the notebook from external power.
5. Remove the battery pack.

For instructions, see the [“Replacing a Battery Pack”](#) section in [Chapter 4, “Power.”](#)

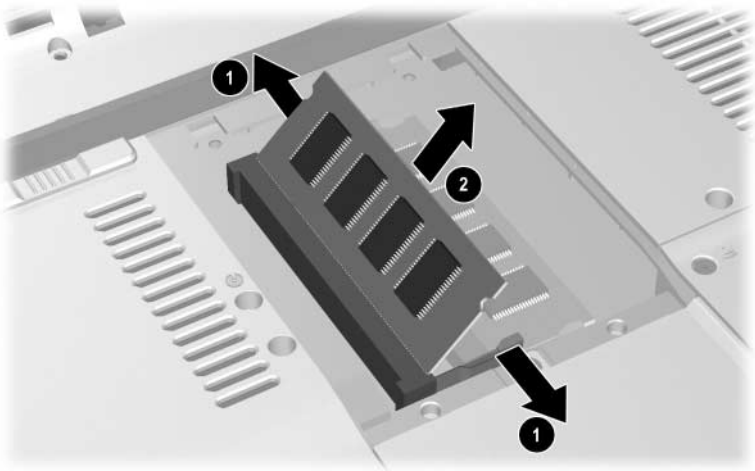
6. Turn the notebook upside down.
7. Loosen the 2 memory compartment screws **1**, and then lift up and remove the memory compartment cover **2**.



8. Remove or insert the memory module.

To remove a memory module:

- a. Pull away the retention clips on each side of the module ❶. (The module tilts upward.)
- b. Grasp the edges of the module and gently pull the module out of the memory slot ❷.
- c. To protect a memory module after removal, place it in an electrostatic-safe container.

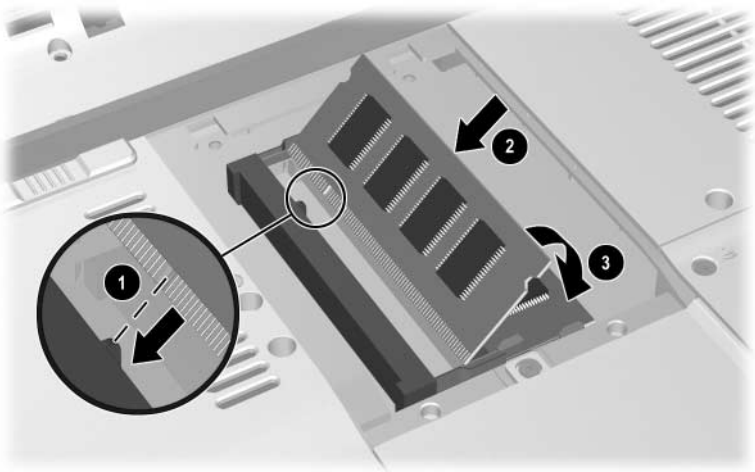


To insert a memory module:

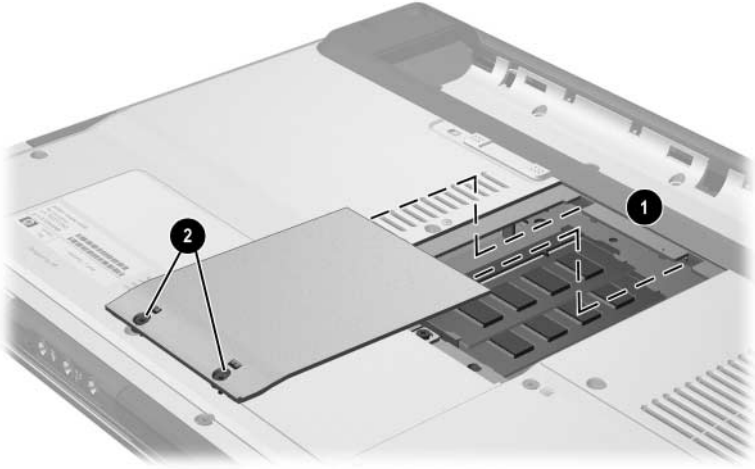
- a. Align the keyed (notched) edge of the module with the keyed area in the memory slot **1**.

If you are inserting a single memory module into a vacant memory compartment, insert the module into the right-hand slot. (The illustration below shows a memory module being inserted into the right-hand slot of a memory compartment that contains a second memory module.)

- b. With the module at a 45-degree angle from the surface of the memory compartment, press the module into the memory slot until it is seated **2**.
- c. Push the module downward until the retention clips snap into place **3**.



9. To close the memory compartment, align the tabs on the memory compartment cover with the cover slots on the notebook, and then slide the cover over the memory compartment until it is seated **1**.
10. Tighten the 2 memory compartment screws **2**.



11. Replace the battery pack, reconnect the notebook to external power, and then restart the notebook.

Software Updates and Recoveries and System Software

Software Updates

For optimal notebook performance and to make sure your notebook remains compatible with changing technologies, install the latest versions of the software provided with your notebook as they become available.

As with any other software modification, it is strongly recommended that you set a restore point before beginning a software update. For instructions, see [“Using System Restore”](#) later in this chapter.

You might find that the easiest way to update the software provided with your notebook is to use the software update links provided at Start > Help and Support.

If you prefer to work from more detailed instructions, the supplementary information in the following sections might help you to

1. Prepare for any update by identifying your notebook category, product name, product number, and serial number.
2. Prepare for a ROM (read-only memory) update by identifying the ROM version currently installed on the notebook.
3. Access the updates at the HP Web site.
4. Download and install the updates.

Preparing for a Software Update

If your notebook connects to a network, consult with your network administrator before installing any software updates, particularly a ROM update.

Accessing Notebook Product Information

To access the updates for your notebook, you might need the following information:

- The product category is Notebook.
- The product name, product number (P/N), and serial number (S/N) are provided on the Service Tag. The information on the Service Tag is provided at **Start > Help and Support**, and on the Service Tag label affixed to the bottom of the notebook.

Accessing Notebook ROM Information

To determine whether an available ROM update is a later ROM version than the ROM version currently installed on the notebook, you need to know the version of the currently installed ROM.

- » To display ROM information from within Windows, press the **fn+esc** hotkey. In the **fn+esc** display, the version of the system BIOS (basic input-output system) is displayed as the BIOS date. On some notebook models, the BIOS date is displayed in decimal format. To clear the display, press **esc**.

ROM information can also be displayed in the Setup utility. The procedure for displaying ROM information is described in this section. For more information about using the Setup utility, see the “[Setup Utility](#)” section later in this chapter.

To display ROM information in the Setup utility:

1. To open the Setup utility, turn on or restart the notebook in Windows, and then press **F10** while the prompt, “Press <F10> to enter setup,” is displayed in the lower left-hand corner of the screen.
2. If the Setup utility does not open with system information displayed, use the arrow keys to select the **Main** menu. (When the Main menu is selected, ROM and other system information is displayed.)
3. To close the Setup utility without changing any settings, use the arrow keys to select the **Exit** menu > **Exit Discarding Changes**, and then press **enter**. (The notebook restarts in Windows.)

Downloading and Installing an Update

Most software at the HP Web site is packaged in compressed files called *SoftPaks*. Some ROM updates might be packaged in compressed files called *ROMPaks*.

Most download packages contain a file named Readme.txt. A Readme.txt file contains detailed descriptive, installation, and troubleshooting information about the download. The Readme.txt files included with ROMPaks are in English only.

The following sections provide instructions for downloading and installing

- A ROM update.
- A SoftPak containing an update other than a ROM update; for example, an application or QuickPlay update.

Downloading and Installing a ROM Update



CAUTION: To prevent serious damage to the notebook or an unsuccessful installation, download and install a ROM update only while the notebook is connected to reliable external power using the AC adapter. (Do not download or install a ROM update while the notebook is docked in an optional Expansion Base or running on battery power.) During the download and installation:

- Do not unplug the notebook from the AC outlet.
- Do not shut down the notebook or initiate Standby or Hibernation.
- Do not insert, remove, connect, or disconnect any device, cable, or cord.

Downloading a ROM Update:

1. Access the page at the HP Web site that provides software for your notebook:
 - ☐ Select **Start > Help and Support**, and then select a software update link.
 - or –
 - ☐ Visit the HP Web Site:
<http://www.hp.com/support>
2. Follow the instructions on the screen to identify your notebook and access the ROM update you want to download.
3. At the download area:
 - a. Record the date, name, or other identifier of any ROM update that is later than the ROM currently installed on your notebook. (You might need this information to locate the update later, after it has been downloaded to the hard drive.)
 - b. Record the path to the default or custom location on the hard drive to which the ROM package will download. (You might need to access the ROM package after it has been downloaded.)
 - c. Follow the online instructions to download your selection to the hard drive.

Installing a ROM Update

ROM installation procedures vary. Follow any instructions that are displayed on the screen after the download is complete. If no instructions are displayed:

1. Open Windows Explorer. To open Windows Explorer from the Start button, select **Start > All Programs > Accessories > Windows Explorer**.
2. In the left pane of the Windows Explorer window, select **My Computer** > your hard drive designation. (The hard drive designation is typically Local Disk C.) Then follow the path you recorded earlier to the folder on your hard drive containing the update.
3. To begin the installation, open the folder, and then double-click the file with an .exe extension—for example, Filename.exe. (The ROM update installation begins.)
4. To complete the installation, follow the instructions on the screen.



After a message on the screen reports a successful installation, you can delete the downloaded file from the destination folder.

Downloading and Installing a Non-ROM SoftPak

To update software other than the ROM—for example, an application or QuickPlay update:

1. Access the page at the HP Web site that provides software for your notebook, select **Start > Help and Support**, and then select a software update link. Or, visit the HP Web site:
<http://www.hp.com/support>
2. Follow the instructions on the screen to identify your notebook and access the SoftPak you want to download.

3. At the download area:
 - a. Write down the date, name, or other identifier of the SoftPak you plan to download. (You might need this information to locate the update later, after it has been downloaded to the hard drive.)
 - b. Follow the online instructions to download the SoftPak to the hard drive.
4. When the download is complete, open Windows Explorer. To open Windows Explorer from the Start button, select **Start > All Programs > Accessories > Windows Explorer**.
5. In the left pane of the Windows Explorer window, select **My Computer** > your hard drive designation (which is typically Local Disk C) > **SWSetup**.

The destination folder for most downloads from the HP Web site is the SWSetup folder. If you don't see the download in the SWSetup folder, look in the **My Documents** folder.
6. In the destination folder, select the name or number of the software package you have downloaded.
7. Select the file that includes an .exe extension—for example, Filename.exe. (The installation begins.)
8. To complete the installation, follow the instructions on the screen.



After a message on the screen reports a successful installation, you can delete the downloaded file from the destination folder.

Software Recoveries

Using System Restore

System Restore is a Windows operating system feature that enables you to undo harmful changes to your notebook software by restoring your software to an earlier time, called a *restore point*, when your software was functioning optimally.

Restore points are restorable, benchmark “snapshots” of your application, driver, and operating system files. The notebook sets restore points at regular intervals and might set additional restore points whenever you change your personal settings or add software or hardware.

Manually setting additional restore points provides additional protection for your system files and settings. It is recommended that you manually set restore points

- Before you add or extensively modify software or hardware.
- Periodically, whenever the system is performing optimally.

Restoring to any restore point does not affect your data files. For example, restoring your system software to an earlier time will not affect documents or emails that you saved after that time. All System Restore procedures are reversible.

Setting a Restore Point

To set a system restore point manually:

1. Select **Start > Help and Support > System Restore**.
2. Select Create a restore point, and then follow the instructions on the screen.

Restoring to a Restore Point

To restore the notebook to a restore point:

1. Make sure the notebook is connected to reliable external power through the AC adapter.
2. Select **Start > Help and Support > System Restore**.
3. Select **Restore my computer to an earlier time**, and then follow the instructions on the screen.

Repairing or Reinstalling Software

If it ever becomes necessary to repair or reinstall your device drivers, an application, or your operating system, refer to Chapter 4, “Repairing or Reinstalling Your Software,” in the *Help and Support Guide*.

A printed edition of the *Help and Support Guide* is included with your notebook. The *Help and Support Guide* is also available on the *Notebook Documentation CD*.

Quick Launch Buttons Control Panel

The Quick Launch Buttons control panel can be used only when the notebook is in Windows. The settings on this control panel apply only when the notebook is in Windows.

You can use the Quick Launch Buttons control panel to

- Set preferences for the display of the **Quick Launch Buttons** icon.
- Change the size and arrangement of icons and text on your Windows desktop.
- Set or change the default media applications launched by the DVD and music buttons on your notebook. You can also change the default media applications launched by the media buttons on an optional remote control, available with select models.
- Display hotkeys information.
- Set button assignments for the Easy Access buttons on an optional external keyboard.

The following sections provide instructions for setting preferences within the control panel. For additional onscreen information about any item on the control panel, select the help button in the upper right-hand corner of the window. The help button is identified with a question mark icon.

Accessing the Quick Launch Buttons Control Panel

The Quick Launch Buttons control panel cannot be accessed when the notebook is in QuickPlay.

When the notebook is in Windows, you can access the Quick Launch Buttons control panel from the Start button or from an icon that you can display on your taskbar or Windows desktop.

- » To access the Quick Launch Buttons control panel from the Start button, select **Start > Control Panel > Quick Launch Buttons**.

Setting Windows Desktop Icon Display Preferences

To change the size of the icons on your Windows desktop and of the text displayed with them:

1. While the notebook is in Windows, open the Quick Launch Buttons control panel:
 - ☐ Select **Start > Control Panel > Quick Launch Buttons**.
 - or –
 - ☐ Select the **Quick Launch Buttons** icon on your taskbar or Windows desktop.
2. Select the **Zoom** tab.
3. Adjust the slider toward the left and right until your icon display preference is displayed in the illustration above the slider.
4. To save your preference and close the display, select **OK**.

If you select a very large icon display and have set your operating system to auto arrange the icons on your Windows desktop, the icons might overlap. To clear the Auto Arrange setting:

1. Right-click an open area on your Windows desktop.
2. Select **Arrange Icons By**.
3. Select **Auto Arrange** to remove the check and disable Auto Arrange.

Displaying the Quick Launch Buttons Icon

To show or hide the Quick Launch Buttons Properties icon on your Windows taskbar or your Windows desktop:

1. While the notebook is in Windows, open the Quick Launch Buttons control panel:
 - ☐ Select **Start > Control Panel > Quick Launch Buttons**.
 - or –
 - ☐ Select the **Quick Launch Buttons** icon on your taskbar or Windows desktop.
2. Select the **Advanced** tab. On the Advanced tab you can
 - ☐ Display or hide the Quick Launch Buttons icon on your taskbar.
 - ◆ To display the icon, select the **Show icon on the taskbar** check box.
 - ◆ To hide the icon, clear the **Show icon on the taskbar** check box.
 - ☐ Display or hide the Quick Launch Buttons icon on your Windows desktop.
 - ◆ To display the icon, select the **Show icon on the desktop** check box.
 - ◆ To hide the icon, clear the **Show icon on the desktop** check box.
3. To save your preferences and close the display, select **OK**.

Setting Media Buttons Preferences

Media buttons preferences set on the Quick Launch Buttons control panel apply only when the notebook is in Windows.

The media buttons on your notebook are the DVD button and the music button. Additional media buttons are available on an optional remote control.

Media button settings apply to the media buttons on both the notebook and an optional remote control. For example, at default settings the DVD button on the notebook and the DVD button on a remote control both launch the same application. If you change the DVD button assignment on the Quick Launch Buttons control panel, the change applies to both DVD buttons.

Setting Media Button Assignments

At default settings, media buttons open media applications. You can change the application opened by a media button or set the button to access an Internet or network destination or any other application, folder, or data file in your system.

To set or change a media button assignment:

1. While the notebook is in Windows, open the Quick Launch Buttons control panel:
 - ❑ Select **Start > Control Panel > Quick Launch Buttons**.
 - or –
 - ❑ Select the **Quick Launch Buttons** icon on your taskbar or Windows desktop.
2. Select the **Media** tab. Then
 - ❑ To change a button assignment to an application on a drop-down list, press the down arrow beside the displayed application, and then select **OK**.
 - ❑ To remove an item from a drop-down list, use the down arrow to display the item, select **Remove**, and then select **OK**. (Default applications on a drop-down list cannot be removed.)
 - ❑ To add an item to a drop-down list, so that you can assign it to a media button, select the displayed item, and then press the **Add** button. Type a name for the new item in the Name field. Then
 - ◆ Type or copy a name or URL into the Assignment field, and then press **OK**.
 - or –
 - ◆ Press the **Browse** button, select the item, and then press **OK**.

Setting a TV Display Preference

Television display preferences apply only when the notebook is in Windows.

You can set a video application, such as InterVideo WinDVD, that is assigned to the media launch button to display on a television. You can adjust this setting so that the media is displayed on the television each time you press the media launch button or so that you are prompted to select a display each time you press the media launch button.

After you have set the notebook to display media on a television

- When you press the media launch button while media is playing, the image switches between the notebook and the television.
- When you press the media launch button while a television is not connected to the system, a “Check for external display before taking media action” message is displayed.

The television display preferences that you set apply only to a television, not to an optional external monitor or projector.

To set TV display preferences:

1. While the notebook is in Windows, open the Quick Launch Buttons control panel:
 - ❑ Select **Start > Control Panel > Quick Launch Buttons**.
 - or –
 - ❑ Select the **Quick Launch Buttons** icon on your taskbar or Windows desktop.

2. Select the **Media** tab. Then
 - ☐ To display the video application assigned to the media launch button on a television, select the **Use Connected TV as Display** check box.
 - ☐ To display the Media Selection screen, select the **Show Media Selection screen at start up** check box.
3. To save your preferences and close the display, select **OK**.

Displaying Hotkey Information

Although some hotkeys can be used while the notebook is in QuickPlay, the hotkey display can be accessed only when the notebook is in Windows.

A hotkey is a preset combination of the **fn** key and another key, such as a function key (**f1** through **f12**) or the **esc** key.

To display information about the hotkey functions available on your notebook:

1. While the notebook is in Windows, open the Quick Launch Buttons control panel:
 - ☐ Select **Start > Control Panel > Quick Launch Buttons**.
 - or –
 - ☐ Select the **Quick Launch Buttons** icon on your taskbar or Windows desktop.
2. Select the **Function Keys** tab.
3. To close the display, select **OK**.

For more information about hotkeys, see the “[Hotkeys](#)” section in [Chapter 3, “Keyboard.”](#)

Setting Button Assignments on an External Keyboard

If you are using an optional HP external keyboard that features Easy Access buttons, you can set Easy Access button assignments and schemes on the **Settings** tab.

Easy Access buttons are inactive when the notebook is in QuickPlay.

The Settings tab is disabled and hidden by default, and can be enabled and displayed only when the notebook is in Windows.

To display and enable the Settings tab on the Quick Launch Buttons control panel:

1. While the notebook is in Windows, open the Quick Launch Buttons control panel:
 - ☐ Select **Start > Control Panel > Quick Launch Buttons**.
 - or –
 - ☐ Select the **Quick Launch Buttons** icon on your taskbar or Windows desktop.
2. Select the **Advanced** tab. Then
 - ☐ To display and enable the Settings tab, select the check box for **Allow users to modify button assignments on external keyboard**.
 - ☐ To disable and hide the Settings tab, clear the check box for **Allow users to modify button assignments on external keyboard**.
3. To save your preferences and close the display, select **OK**.

For information about managing Easy Access button assignments and schemes, refer to your keyboard documentation.

Setup Utility

The Setup utility is a ROM-based information and customization utility that can be used even when your Windows operating system is not working or will not load.

The utility reports information about the notebook and provides settings for startup, security, and other preferences.

Step-by-step instructions for setting specific preferences are included by topic earlier in this guide. For example, procedures for setting security preferences are provided in [Chapter 7, “Security.”](#)

Opening the Setup Utility

To open the Setup Utility:

1. Turn on or restart the notebook in Windows.
2. Before Windows opens and while the “Press <F10> to enter setup” prompt is displayed in the lower left-hand corner of the screen, press **f10**.

Changing the Language of the Setup Utility

The following procedure explains how to change the language of the Setup utility. If the notebook is not in the Setup utility, begin at step 1. If the notebook is in the Setup utility, begin at step 2.

1. To open the Setup utility, turn on or restart the notebook in Windows, and then press **f10** while the prompt, “Press <F10> to enter setup,” is displayed in the lower left-hand corner of the screen.
2. Use the arrow keys to select the **Advanced** menu.
3. Press **f5** or **f6** (or use the arrow keys) to select a language, and then press **enter**.
4. When a confirmation prompt with your preference selected is displayed, press **enter** to save your preference.
5. To set your preferences and exit the Setup utility, press **f10** and then follow the instructions on the screen. Your preferences are in effect when the notebook restarts in Windows.

Navigating and Selecting in the Setup Utility

Because the Setup utility is not Windows-based, it does not support the TouchPad. Navigation and selection are by keystroke.

- To choose a menu or a menu item, use the arrow keys.
- To choose an item in a drop-down list or to toggle a field, for example an Enable/Disable field, use either the arrow keys or **f5** or **f6**.
- To select an item, press **enter**.
- To close a text box or return to the menu display, press **esc**.

To display additional navigation and selection information while the Setup utility is open, press **f1**.

Displaying System Information

The following procedure explains how to display system information in the Setup utility. If the Setup utility is not open, begin at step 1. If the Setup utility is open, begin at step 2.

1. To open the Setup utility, turn on or restart the notebook in Windows, and then press **f10** while the prompt, “Press <F10> to enter setup,” is displayed in the lower left-hand corner of the screen.
2. Access the system information on the Main and Advanced menus.
 - ❑ To display most of the system information available in the Setup utility, use the arrow keys to select the **Main** menu.
 - ❑ To display video memory information, use the arrow keys to select the **Advanced** menu.
3. To close the Setup utility without changing any settings, use the arrow keys to select the **Exit menu > Exit Discarding Changes**, and then press **enter**. (The notebook restarts in Windows.)

Restoring Default Settings in the Setup Utility

The following procedure explains how to restore the Setup utility default settings. If the notebook is not in the Setup utility, begin at step 1. If the notebook is in the Setup utility, begin at step 2.

1. To open the Setup utility, turn on or restart the notebook in Windows, and then press **f10** while the prompt, “Press <F10> to enter setup,” is displayed in the lower left-hand corner of the screen.
2. Press **f10**.

3. When the Setup Confirmation is displayed, press **enter** to save your preferences.
4. To set your preferences and exit the Setup utility, press **f10**, and then follow the instructions on the screen.

The Setup utility default settings are set when you exit the Setup utility and are in effect when the notebook restarts. Identification information, including ROM version information, is retained.

Using Advanced Setup Utility Features

This guide describes the Setup utility features recommended for all users. For more information about the Setup utility features recommended for advanced users only, refer to the Help and Support Center, which is accessible only when the notebook is in Windows. To access the Help and Support Center, select **Start > Help and Support**.

The Setup utility features available for advanced users include a hard drive self-test, a Network Service Boot, and settings for boot order preferences.

The “<F12> to boot from LAN” message that is displayed in the lower-left corner of the screen each time the notebook is started or restarted in Windows or restored from Hibernation is the prompt for a Network Service Boot.

The “Press <ESC> to change boot order” message that is displayed in the lower-left corner of the screen each time the notebook is started or restarted in Windows or restored from Hibernation is the prompt to change the boot order.

Closing the Setup Utility

You can close the Setup utility with or without saving changes.

- To close the Setup utility and save your changes from the current session, use either of the following procedures:
 - Press **f10**, and then follow the instructions on the screen.
 - or –
 - If the Setup utility menus are not visible, press **esc** to return to the menu display. Then use arrow keys to select the **Exit** menu > **Exit Saving Changes**, and then press **enter**.

When you use the **f10** procedure, you are offered an option to return to the Setup utility. When you use the Exit Saving Changes procedure, the Setup utility closes when you press **enter**.

- To close the Setup utility without saving your changes from the current session:

If the Setup utility menus are not visible, press **esc** to return to the menu display. Then use arrow keys to select the **Exit** menu > **Exit Discarding Changes**, and then press **enter**.

After the Setup utility closes, the notebook restarts in Windows.

Specifications

Operating Environment

The operating environment information in the following table might be helpful if you plan to use or transport the notebook in extreme environments.

| Factor | Metric | U.S. |
|--|-------------------|---------------------|
| Temperature | | |
| Operating (not writing to optical disc) | 0C° to 35°C | 32F° to 95°F |
| Operating (writing to optical disc) | 5C° to 35°C | 41F° to 95°F |
| Nonoperating | -20C° to 60°C | -4F° to 140°F |
| Relative humidity (noncondensing) | | |
| Operating | 10% to 90% | 10% to 90% |
| Nonoperating | 5% to 95% | 5% to 95% |
| Maximum altitude (unpressurized) | | |
| Operating | -15 m to 3,048 m | -50 ft to 10,000 ft |
| Nonoperating | -15 m to 12,192 m | -50 ft to 40,000 ft |

Rated Input Power

The power information in this section might be helpful if you plan to travel internationally with the notebook.

The notebook operates on DC power, which can be supplied by an AC or a DC power source. Although the notebook can be powered from a stand-alone DC power source, it is strongly recommended that the notebook be powered only with an AC adapter or DC power cord supplied with or approved by HP.

The notebook is capable of accepting DC power within the following specifications:

| Input Power | Rating |
|-------------------|-------------------------|
| Operating voltage | 18.5V dc @ 3.5 A - 65 W |
| Operating current | 3.5 A |

This product is designed for IT power systems in Norway with phase-to-phase voltage not exceeding 240 Vrms.

Expansion Port Input/Output Signals

The expansion port signal information in this section might be helpful if you plan to use an optional HP expansion product that connects to the expansion port on your notebook.

This port is illustrated in the [“Left-Side Components”](#) section of [Chapter 1, “Hardware.”](#)

Optional HP expansion products that connect to the notebook through the expansion port might include an Expansion Base or an HP xc2000 Notebook All-in-One Media Cable.

The following table identifies the input and output signals supported by the expansion port on your notebook.

| Feature | Support |
|--|----------------|
| USB 2.0 | Yes |
| 10/100 Ethernet | Yes |
| Gigabit Ethernet | No |
| IEEE 1394 (4-pin port) | Yes |
| Consumer IR (for optional remote control only) | Yes |
| Power inputs | 65 W |
| Composite TV | Yes |
| S-Video TV | Yes |
| Component TV | No |
| S/PDIF audio | Yes |
| DVI | No |
| Headphone/speaker audio-out | Yes |
| Microphone audio-in | Yes |

Index

1394 devices, connecting 8–3
1394 port, identifying 1–19
6-in-1 Digital Media Reader
 light 1–20, 8–6
6-in-1 Digital Media Reader
 slot 1–20, 8–6

A

AC adapter 1–23
AC power vs. battery power
 4–1
administrator password 7–5
airport security devices 8–13
altitude specifications A–1
antennae 1–11
antivirus software 7–12
application recovery disc 1–24
applications. *See also* software
 applications key, Windows
 1–2
 applications, reinstalling or
 repairing 1–24
audio-in (microphone) jack
 1–12, 5–4
audio-out (headphone) jacks
 connecting 5–5

 identifying 1–12
 setting signal preferences
 2–29

auto turn-off 2–28

Auto/Air/AC Adapter 4–2,
 4–21

Automobile Power

 Adapter/Charger 4–2, 4–21

AutoPlay 5–13

B

back button 1–8

base, docking. *See* Expansion
 Base

battery bay 1–22, 1–25

battery light

 displaying charge status
 4–22, 4–24

 identifying 1–13, 4–4

battery pack

 battery power vs. AC
 power 4–1

 calibrating 4–26

 charging 4–21

 conserving power 4–29

 diagnostic information
 9–20

- identifying 1–23
- inserting 4–32
- low-battery conditions 4–24
- monitoring charge 2–26, 4–22
- removing 4–31
- storing 4–33
- battery pack release latch 1–22, 4–31
- bays
 - battery 1–22, 1–25
 - hard drive 1–22
 - See also* compartments
- BIOS information, displaying 7–2, 9–2
- Bluetooth 6–10
- Bluetooth device 1–10, 1–14
- Bluetooth headphones 8–4
- Bluetooth label 1–25
- buttons
 - back** 1–8
 - display release 1–12
 - DVD 1–5
 - Easy Access 9–17
 - music 1–6
 - mute 1–8, 2–24, 5–2
 - next/fast forward 1–7, 2–22, 5–12
 - ok** 1–8
 - PC Card eject 1–17, 8–11
 - play/pause 1–7, 2–22, 5–12
 - power 1–4, 4–11, 4–19
 - previous/rewind 1–7, 2–22, 5–12
 - stop 1–7, 2–22, 5–12

- TouchPad 1–3, 3–1
- volume 1–8, 5–2
- wireless 1–10
- See also* battery pack
 - release latch; display switch; keys

C

- cable lock, security 1–18, 7–15
- cables
 - audio 5–7
 - HP xc2000 Notebook
 - All-in-One Media Cable 2–29, 2–31, 3–8, 5–6
 - modem 1–23
 - network 1–16
 - S-Video 5–7
 - See also* power cord
- calibration, battery 4–26
- camcorder
 - connecting 8–3
- camera
 - connecting 8–3
- caps lock light 1–9
- card and socket services, PC Card 8–9
- card. *See* digital memory
 - cards; memory; PC Card
- category view, Windows 3–3
- CDs
 - audio, hotkeys 3–11
 - audio, playing in
 - QuickPlay 2–9
 - copying 5–15
 - copyright warning 5–15

- creating 5–15
- Documentation* 1–24
- inserting, removing 5–10
- multimedia applications 5–20
- playing 5–14, 5–18
- setting AutoPlay preferences 5–13
- writing to 5–15
- See also* recovery discs
- Certificate of Authenticity label 1–25
- classic view, Windows 3–3
- compartments
 - memory 1–21, 1–25, 8–18
 - Mini PCI 1–21, 1–25
 - See also* bays
- composite video 2–31, 3–8
- Computer Setup
 - setting security preferences 7–3
- connectors
 - drive 8–13
 - power 1–15
 - See also* jacks; ports
- conservation, power 4–29
- cord, power 1–23
- See also* cables
- country-specific modem adapter 1–23
- critical low-battery condition 4–24

D

- default settings, restoring
 - Picture Properties 2–36
 - Setup utility 9–20
- desktop, Windows, setting
 - icon display preferences 9–11
- device disabling 7–11
- device security 7–11
- device, connecting powered 8–1
- digital memory cards
 - inserting 8–7
 - removing 8–8
 - setting AutoPlay preferences 5–13
- disc, optical. *See* CDs; DVDs
- diskette
 - affected by airport security 8–13
 - protecting playback 4–11
- display release button 1–12
- display switch
 - identifying 1–4, 4–4
 - setting preferences 4–19
- display, internal
 - controlling brightness 3–10
 - switching image 3–8
 - See also* display switch
- driver recovery disc 1–24
- drivers, reinstalling or repairing 1–24

- drives
 - adding to system 8–12
 - affected by airport security 8–13
 - avoiding Standby and Hibernation while using discs, diskettes 4–11, 5–14
 - caring for 8–13
 - IDE drive light 8–12
 - shipping 8–13
 - USB 8–2
 - See also* CDs; DVDs; hard drive
 - DVD button
 - changing Windows function 9–13
 - displaying DVD menus 2–21
 - function summary 1–5
 - opening DVD mode 2–20
 - opening Windows DVD player application 5–21
 - DVD mode
 - disc menus 2–21
 - discs supported 2–19
 - displaying disc title and chapter 2–21
 - opening 2–20
 - playing discs 2–19
 - See also* music mode; QuickPlay
 - DVDs
 - changing regional settings 5–16
 - creating 5–22
 - hotkeys 3–11
 - inserting, removing 5–10
 - multimedia applications 5–20
 - playing 5–14, 5–18
 - playing in QuickPlay 2–19
 - setting AutoPlay preferences 5–13
 - writing to 5–15
 - See also* recovery discs
 - DVD-Video (read-only DVD disc) 2–19
- E**
- Easy Access buttons 9–17
 - eject buttons
 - optical drive 5–10
 - PC Card 8–11
 - electrostatic discharge (ESD) 8–13, 8–19
 - emergency shutdown procedures 4–17
 - enablers, PC Card 8–9
 - environmental specifications A–1, A–2
 - ESD (electrostatic discharge) 8–13, 8–19
 - exhaust vent 1–15, 1–18, 1–22
 - Expansion Base
 - as power source 4–2
 - docking, undocking while using disc, diskette 5–14
 - expansion port on notebook 1–16
 - monitor port 3–8

- S/PDIF support 2–29, 5–6
- USB support 8–2
- expansion port 1–16, A–3
- external keypad 3–18

F

- F12 to boot from LAN
 - message 9–21
- firewall software 7–14
- fn** key 1–2
- function keys (**f1**, **f2**, etc.) 1–2, 3–4

G

- Getting Started* 1–24

H

- hard drive
 - affected by airport security 8–13
 - displaying amount of free space on 8–18
 - replacing internal 8–14
 - self-test 9–21
 - space on, required for
 - Hibernation file 8–18
- hard drive bay
 - identifying 1–22
 - replacing hard drive 8–14
- headphone (audio-out) jacks
 - connecting 5–5
 - identifying 1–12
- headphones 5–5, 8–4
- Help and Support Center 3–6
- Help and Support Guide* 1–24

Hibernation

- avoiding when using discs,
 - diskettes 4–11, 5–14
- defined 4–7
- enabling/disabling 4–9
- identifying 8–14
- initiated during critical
 - low-battery condition 4–24
- initiating 4–7, 4–15
- restoring from 4–9, 4–16
- setting preferences 4–18
- when to use 4–7

- hibernation file
 - function 4–7
 - retained in QuickPlay 4–9
 - space required 8–18
- hotkey commands
 - access Help and Support Center 3–6
 - control media activity (play, pause, stop, etc.) 3–11, 5–11
 - decrease display brightness 3–10
 - display system information 3–13, 9–2
 - increase display brightness 3–10
 - initiate QuickLock 3–10
 - initiate Standby 4–14, 4–19
 - open Internet Explorer 3–7
 - open print options window 3–7

- Quick Reference 3–5
- switch image 3–8
- hotkeys
 - displaying functions on the screen 9–16
 - identifying 1–2, 3–4
 - procedures 3–6
 - Quick Reference 3–5
 - using with external keyboard 3–6
- hotspots 6–1
- HP administrator password 7–5
- HP password 7–5
- HP password guidelines 7–6
- HP QuickPlay recovery disc 1–24
- HP xc 2000 Notebook
 - All-in-One Media Cable 5–6
- HP xc2000 Notebook
 - All-in-One Media Cable 2–29, 2–31, 3–8
- hub, USB 8–2
- humidity specifications A–1
- I**
- icons on Windows desktop, setting display preferences 9–11
- IDE drive light 1–13, 8–12
- identifying components
 - bottom 1–21
 - front 1–12
 - left-side 1–14
 - rear 1–14
 - right-side 1–19
 - top 1–2
- IEEE 1394 port 1–19, 8–3
- infrared 6–16, 6–17
- infrared lens 1–12
- Internet Connection wizard 3–7
- Internet Explorer 3–7
- InterVideo WinDVD Creator 5–20
- InterVideo WinDVD Player 5–18, 5–20
- J**
- jacks
 - audio-in (microphone) 1–12, 5–4
 - audio-out (headphone) 1–12, 5–5
 - RJ-11 (modem) 1–16
 - RJ-45 (network) 1–16
 - S-Video-out 1–19, 5–7
 - See also* connectors; ports
- K**
- keyboard, external 3–6, 9–17
- keypad, external 3–18
- keypad, internal
 - identifying 1–2, 3–16
 - procedures 3–17
- keys
 - fn** 1–2
 - function (**f1**, **f2**, etc.) 1–2
 - hotkeys 1–2, 3–4
 - keypad 1–2, 3–16
 - num lock** 3–17
 - scroll lock** 3–6

shift 3–17, 4–15
Windows applications 1–2
Windows logo 1–2
See also buttons; display switch

L

labels

Bluetooth 1–25
Microsoft Certificate of Authenticity 1–25
Modem Approval 1–25
Regulatory 1–25
Service Tag 1–25
wireless certification 1–25
WLAN 1–25

language

changing in QuickPlay 2–27
changing in Setup utility 9–19

latch, battery pack release 1–22

See also buttons; display switch

lights

6-in-1 Digital Media Reader 1–20, 8–6
battery 1–13, 4–22, 4–24
caps lock 1–9
IDE drive 1–13, 8–12
mute 1–9, 2–24, 5–2
num lock 1–9, 3–17
power button 1–9, 4–11
power/standby 1–13, 4–11
TouchPad 1–3, 3–1

wireless 1–10, 1–14

wireless button 1–10

lock, security cable 1–18, 7–15

lock-up, system 4–16

low-battery condition 4–24

M

media controls 2–22

Media Player, Windows 5–20

memory

displaying amount of 3–6, 8–18

increasing RAM 8–18

memory compartment 1–21, 1–25, 8–20

memory module, removing or inserting 8–19

Memory Stick, Memory Stick Pro 1–20, 8–5

microphone 5–4

microphone (audio-out) jack 1–12, 5–4

Microsoft Certificate of Authenticity label 1–25

Mini PCI compartment 1–21, 1–25

model, identifying notebook 3–6, 9–2

modem

country-specific adapter 1–23

documentation 8–4

modem (RJ-11) jack 1–16

Modem Approval label 1–25

modem cable 1–23

- monitor
 - connecting 8–1
 - switching image 3–8, 8–1
- monitor port 1–16
- mouse, external
 - setting preferences 3–2
 - USB 8–2
- MP3 files 2–10
- MultiMediaCard 1–20, 8–5
- music button
 - changing Windows function 9–13
 - function summary 1–6
 - opening music mode 2–9
 - opening windows music player application 5–21
- music mode
 - media activity indicators 2–23
 - music console Quick Reference 2–5
 - opening 2–9
 - playing audio CDs 2–9
 - playing MP3 files 2–10
 - Playlist 2–13, 2–15
 - Shared Music folder 2–11
 - Source directory 2–13
 - See also* DVD mode; QuickPlay
- mute button 1–8, 5–2
- mute light 1–9, 5–2

N

- network (RJ-45) jack 1–16
- network cable 1–16
- network documentation 8–4

- Network Service Boot 9–21
- next/fast forward button 2–22, 5–12
 - identifying 1–7
- Norton AntiVirus 7–12
- Notebook Documentation* CD 1–24
- notebook model, family, type, and serial number 3–6, 9–2
- NTSC formats 2–32
- num lock** key 3–17
- num lock light 1–9, 3–17
- numeric keypad. *See* keypad, external; keypad, internal

O

- ok** button 1–8
- operating environment
 - specifications A–1
- operating system
 - loading 4–12
 - passwords 7–5
 - security 7–1
 - shutting down 4–12, 4–16
- operating system recovery disc 1–24
- operating system, Windows
 - Microsoft Certificate of Authenticity label 1–25
 - Product Key 1–25
 - reinstalling or repairing 1–24
- optical disc. *See* CDs; DVDs
- optical drive
 - identifying 1–20

- inserting, removing disc
 - 5–10
- See also* CDs; drives;
DVDs
- P**
- PAL formats 2–32
- passwords
 - forgetting 7–4
 - HP 7–5
 - HP guidelines 7–6
 - power-on 7–9
 - QuickLock 3–10
 - Standby 4–18
 - using 7–4
 - Windows 7–5
 - Windows administrator 3–10
 - Windows guidelines 7–6
 - Windows user 3–10
- passwords, coordinating 7–6
- PC Card
 - configuring 8–9
 - inserting, removing 8–10
 - stopping 8–11
 - types supported 8–9
- PC Card eject button 1–17, 8–11
- PC Card slot 1–17, 8–10
- PCFriendly 5–19
- play/pause button 2–22, 5–12
 - identifying 1–7
- Player Setup 2–27
- Playlist 2–13, 2–15
- pointing device 3–2
- port, infrared 6–16
- ports
 - 1394 1–19, 8–3
 - expansion port 1–16
 - monitor 1–16, 3–8
 - USB 1–16, 1–19, 8–2
 - See also* connectors;
infrared lens; jacks
- power
 - conserving 4–7, 4–29
 - control and light locations 4–4
 - schemes 4–18
 - setting preferences 4–18
 - sources 4–1
 - switching between AC and battery 4–3
 - See also* battery pack;
Hibernation; shutdown
procedures; Standby
- power button
 - default functions 4–11
 - identifying 1–4, 4–4
 - resetting notebook with 4–17
 - setting preferences 4–19
- power button light 1–9, 4–11
- power connector 1–15
- power cord
 - external device 8–1
 - notebook 1–23
 - See also* cables
- Power Meter 4–23
- Power Meter icon 4–3, 4–23
- power/standby light 1–13, 4–11

powered device, connecting
8–1

power-on password 7–5

previous/rewind button

identifying 1–7

using 2–22, 5–12

Product Key 1–25

product name and number,

notebook 1–25, 3–6

projector

connecting 1–16, 8–1

switching image 3–8

PXE server 9–21

Q

QuickLock 3–10

QuickLock hotkey 7–3

QuickPlay

auto turn-off 2–28

Hibernation 4–7

language 2–27

navigating, selecting 2–3

recovery disc 1–24

restoring picture properties

default settings 2–36

setting audio-out

preferences 2–29

setting brightness

preferences 2–35

setting color preferences

2–34

setting contrast preferences

2–35

setting picture property

preferences 2–34

setting TV system

preferences 2–30

setting TV-out preferences

2–30

Standby 4–5

switching between DVD

mode and music mode

2–38

switching between

QuickPlay and Windows

2–39

turning off 4–13

turning on 4–12

See also DVD mode; music

mode

R

RAM (random access

memory) 8–18

recovery discs 1–24

regional settings for DVDs

5–16

regulatory information

Modem Approval label

1–25

Regulatory label 1–25

wireless certification labels

1–25

reinstalling or repairing

software

documentation 9–8

recovery discs 1–24

System Restore 9–7

release latch, battery pack

1–22, 4–31

repeat control 2–18

- reset (emergency shutdown procedures) 4–16
- restore point 9–7
- RJ-11 (modem) jack 1–16
- RJ-45 (network) jack 1–16
- ROM
 - determining current version of 9–2
 - downloading and installing 9–4
 - obtaining updates 9–3
- ROMPaq 9–3
- S**
- S/PDIF 2–29, 5–6
- scanner 8–3
- screen saver 4–30
- scroll lock** key 3–6
- scrolling region, TouchPad 1–3, 3–2
- Secure Digital (SD) Memory Card 1–20, 8–5
- security cable lock, connecting 7–15
- security cable slot 1–18
- security features 7–1
- security features on notebook
 - Computer Setup 7–3
 - selecting 7–1
- serial number, notebook 1–25, 3–6
- series, notebook 9–2
- Service Tag 1–25
- Setup utility
 - changing language 9–19
 - displaying system information 9–20
 - navigation and selection 9–19
 - Network Service Boot 8–4, 9–21
 - opening 9–18
 - restoring default settings 9–19, 9–20
 - setting security preferences 7–3
- Shared Music folder 2–11
- shift** key
 - Hibernation function 4–15
 - internal keypad function 3–17
- shuffle control 2–18
- shutdown procedures 4–12
- 6-in-1 Digital Media Reader
 - light 1–20, 8–6
- 6-in-1 Digital Media Reader
 - slot 1–20, 8–6
- sleep button 3–9
- Sleep. *See* Standby
- slots
 - 6-in-1 Digital Media Reader 1–20
 - memory 8–18
 - PC Card 1–17
 - security cable 1–18
- SmartMedia (SM) card 1–20, 8–5
- socket services, PC Card 8–9
- SoftPaq 9–3, 9–5

- software
 - antivirus 7–12
 - AutoPlay 5–13
 - firewall 7–2, 7–14
 - Internet Connection wizard 3–7
 - multimedia applications 5–16, 5–18
 - Player Setup 2–27
 - Power Meter 4–23
 - reinstalling or repairing 1–24
 - repair, reinstallation
 - documentation 9–8
 - ROMPaq 9–3
 - security features 7–1
 - Setup utility 9–18
 - SoftPaq 9–3
 - System Restore 9–7
 - updating 9–1
 - Sonic RecordNow! 5–18, 5–20
 - Source directory 2–13, 2–14
 - speakers
 - external 5–5
 - internal 1–12, 5–3
 - specifications
 - operating environment A–1
 - rated input power A–2
 - Standby
 - avoiding when using discs, diskettes 4–11, 5–14
 - initiated during critical low-battery condition 4–24
 - initiating 4–5, 4–14
 - password 4–18
 - power button light 1–9
 - power/standby light 1–13
 - resuming from 4–6, 4–14
 - setting preferences 4–18
 - stereo speakers
 - external 5–5
 - internal 1–12, 5–3
 - stop button 2–22, 5–12
 - identifying 1–7
 - SVCD (Super Video CD) 2–19
 - S-Video devices, connecting 5–7
 - S-Video out jack 1–19
 - switch, display
 - identifying 1–4, 4–4
 - setting preferences 4–19
 - system information,
 - displaying 9–2, 9–20
 - system lock-up 4–17
 - System Restore 9–7
- T**
- telephone jack (RJ-11 jack) 1–16
 - television
 - connecting audio 5–5
 - connecting video 5–8
 - temperature
 - specifications A–1
 - storage, battery pack 4–33
 - 1394 devices, connecting 8–3
 - 1394 port, identifying 1–19
 - TouchPad 1–3, 3–1

- traveling with notebook
 - battery pack temperature considerations 4–33
 - environmental specifications A–1
 - Modem Approval label 1–25
 - wireless certification labels 1–25
- turning off notebook 4–12, 4–16
- turning on notebook 4–12
- tutorials 3–6, 5–19, 8–4

U

- unresponsive system,
 - emergency shutdown procedures 4–16
- USB devices, connecting 8–2
- USB ports, identifying 1–16, 1–19
- user passwords 7–5

V

- VCD (video CD) 2–19
- VCR
 - connecting audio 5–5
 - connecting video 5–7
- vents, exhaust 1–15, 1–18, 1–22
- video CD 2–19
- video device
 - connecting 5–7, 8–1
 - turning on or off 5–9
- viruses, antivirus software 7–12

- volume down button 1–8, 2–24
- volume up button 1–8, 2–24
- volume, adjusting 2–24, 5–2

W

- Windows applications key 1–2
- Windows category vs.
 - Windows classic view 3–3
- Windows desktop, setting icon display preferences 9–11
- Windows firewall 7–2
- Windows logo key 1–2
- Windows Media Player 5–20
- Windows MovieMaker 5–20
- Windows password guidelines 7–6
- Windows, switching between
 - Windows and QuickPlay 2–39
- WinDVD Creator 5–20
- WinDVD Player 5–20
- wireless
 - button 6–12
 - types of WLAN adapters 6–8
 - wireless local area network (WLAN) 6–7
 - WLAN software 6–9
- wireless button 1–10
- wireless button light 1–10
- wireless certification label 1–25
- wireless device antennae 1–11
- wireless device documentation 8–4

wireless headphones 8–4
wireless LAN device 1–10,
1–14, 1–21

wireless light 1–10, 1–14

WLAN

identifying devices 6–7

software 6–9

troubleshooting 6–9

types 6–8

WLAN label 1–25

X

xD-Picture Card 1–20, 8–5